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SIXTY-FOURTH ANNUAL REPORT

OF THE

BOARD OF EDUCATION:

TOGETHER WITH THE

SIXTY-FOURTH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD,

1899-1900.

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JANUARY, 1901.

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# STATE BOARD OF EDUCATION.

## 1901.

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### EX OFFICIIS.

HIS EXCELLENCY W. MURRAY CRANE, *Governor.*

HIS HONOR JOHN L. BATES, *Lieutenant-Governor.*

### BY APPOINTMENT.

GEORGE H. CONLEY,	. . .	<i>Brookline,</i>	. . .	May 25, 1901.
ALICE FREEMAN PALMER,	. . .	<i>Cambridge,</i>	. . .	May 25, 1902.
JOEL D. MILLER,	. . .	<i>Leominster,</i>	. . .	May 25, 1903.
KATE GANNETT WELLS,	. . .	<i>Boston,</i>	. . .	May 25, 1904.
CLINTON Q. RICHMOND,*	. . .	<i>North Adams,</i>	. . .	May 25, 1905.
GEORGE I. ALDRICH,	. . .	<i>Newtonville,</i>	. . .	May 25, 1906.
ELMER H. CAPEN,	. . .	<i>Somerville,</i>	. . .	May 25, 1907.
ELIJAH B. STODDARD,	. . .	<i>Worcester,</i>	. . .	May 25, 1908.

### SECRETARY.

FRANK A. HILL, . . . . . *Cambridge.*

### CLERK AND TREASURER.

C. B. TILLINGHAST, . . . . . *Boston.*

### AGENTS.

JOHN T. PRINCE,	. . . . .	<i>West Newton.</i>
G. T. FLETCHER,	. . . . .	<i>Northampton.</i>
JAMES W. MACDONALD,	. . . . .	<i>Stoneham.</i>

### AGENTS FOR THE PROMOTION OF INDUSTRIAL DRAWING.

HENRY T. BAILEY,	. . . . .	<i>North Scituate.</i>
L. WALTER SARGENT,	Assistant for Western Counties, . <i>Littleton.</i>	

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\* Appointed March 21, 1901, to take the place of Franklin Carter, resigned.

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ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

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## ANNUAL REPORT.

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In compliance with the statutes of the Commonwealth, the Board of Education herewith respectfully submits its sixty-fourth annual report.

The most notable educational movement of this century of marvelous material, scientific and intellectual progress is the remarkable development of the public school system. Foremost in carrying on this movement, the Commonwealth has placed within the reach of all classes the means for the broadest possible training. No other State in the Union, according to high authority, has offered so many educational advantages to its people. A standard of excellence has been attained, and the future is bright with the promise of greater progress.

The closing year of the century has been replete with educational improvement and growth. Schools have multiplied and increased in attendance and efficiency, colleges and professional institutions have expanded and extended their influence, and public interest in the welfare of education has intensified.

The situation and outlook of education in the State therefore fully justify the congratulations which the Board herewith extends to the Legislature and citizens of the Commonwealth. As long as the teachers and school officers are efficient and animated by a lofty purpose, as long as the people strive for the best in education, the schools will continue to be agencies of ever-widening influence and ever-increasing beneficence.

As the secretary, the agents of the Board and the visitors of the normal schools will furnish in detail the information required in regard to the condition and efficiency of the educational system of the State, this report will be confined to

the consideration of a few points that seem to demand special mention in connection with the general interests of public education.

#### NORMAL SCHOOLS.

The normal schools are first in the consideration of the Board, as they are first in prominence in the school system of the State. The management of these schools devolves entirely upon the Board; and the question that is ever pressing is, How can these schools be made to accomplish more good?

The great service they have rendered to the State is fully recognized. They have shown the importance of professional training for the teachers' work, and have been the instrument by which a public opinion has been formed which demands adequate preparation for teaching. They have proved a great and moving force in the community, and continue to grow and expand in influence and power.

#### SUPERVISION OF NORMAL INSTRUCTION.

All the schools are doing the best possible under present conditions. When the schools were smaller and less in number there was a greater degree of unification of method of instruction and management than now obtains. With several new schools, and the remarkable expansion of the old ones, adequate supervision is a difficult task; indeed, an almost impossible one with the present means at the command of the Board. That provision should be made for the proper supervision of normal instruction appears to the Board at the present time to be the most important and progressive recommendation that it can make to the Legislature.

An able educator should be secured, — one fitted by nature, learning and experience, who should be the direct representative of the Board in the management and care of the normal schools. The direction of the special department of normal school work requires such aid. Such service would prove an economic measure, both as to time and money, inasmuch as harmony, both in instruction and management, by the unification and simplification of methods, would result.

The functions of the normal school supervisor should be in the nature of suggestion and advice to the principals and teach-

ers; he should make such suggestions and recommendations to the Board as he may deem necessary or advisable regarding needed changes in the organization and management of the schools, their courses of study and their teaching force. He should be alert to conserve all new features of practical value in normal instruction. He should also have charge of the State examination and certification of teachers. His field of service, therefore, would practically include all matters relating to the qualifications of teachers. As no one man can now be thoroughly conversant with the manner and methods of each of the ten normal schools of the State, such service would be of inestimable value in placing the Board in the closest touch with the educational and administrative methods of all of the schools.

#### HIGH SCHOOLS.

The most notable feature in the development of the public school system was the growth of the public high schools. The early high schools were modeled upon the academies, in which was conducted the secondary education of the first half of the century. In these academies were trained the men who organized the industries, projected the institutions and established the traditions of the State,—men who have dignified and ennobled all the walks of civic and professional life. Recognizing the value of the training which they had received, the patrons of these academies took them to their homes, and, under the name of high schools, established them in many cities and towns. Under the fostering care of the State their number has increased and their influence has extended until every child in the Commonwealth is freely entitled to the priceless advantages of a high school education.

These institutions have become the people's colleges, and in them the leaders of the future are to be nurtured. Cities and towns vie with one another in the erection of spacious and elegant high school buildings, and enter into sharp competition for the ablest teachers. No college buildings excel the best high schools in adaptation to their uses, completeness of appointments, excellence of equipment, heating, lighting and sanitation.

The courses of study are fairly comparable in scope and richness with those given in most colleges thirty years ago. They do not, indeed, include all the subjects then offered by the colleges, and they presuppose less maturity in the student; but in point of definiteness of aim, earnest effort, insistence upon high ideals, inspiration to noble endeavor, fertility of resources and skilful and stimulating instruction, the high schools do not suffer in comparison with the colleges of to-day. A boy who has creditably completed the course of study in a good high school is as well equipped for a business career, or for the serious study of a profession, as most graduates of colleges thirty years ago. These facts cannot be brought to the attention of the people too frequently or enforced with too great emphasis. Public opinion is likely to be unduly influenced by critics who magnify slight defects, real or fancied, in the public school system and overlook its abounding merits. They assert that the system is not in accord with the requirements of everyday life, and demand large modifications in its principles and methods to make it, as they say, practical. The efforts which many high schools are now making to meet the popular demand for training in the commercial branches are not to be deplored; but it is important to emphasize the fact that such training has little educational value if it does not rest on a secure foundation of general study. All courses designed primarily to meet vocational ends are likely to be narrow and superficial; and they are singularly dangerous, because their superficiality is so skilfully concealed.

#### RELATION OF HIGH SCHOOLS TO THE COLLÉGES.

No fact of educational history is more encouraging than the marvelous power of the high school system to adapt itself to the varying and increasing needs of our complex civilization. In this process of adjustment to constantly changing conditions there is danger that fundamental principles will be overlooked, and that undue influence will be exerted by vocational considerations on the one hand and the requirements and practice of the colleges on the other.

Fortunately, the arbitrary attitude of the colleges towards

the schools, which existed for many years, has been changed to a spirit of friendly co-operation. The principle that any good high school course, covering four full years, is an adequate preparation for college, is now generally admitted; but much remains to be done to bring the practice of the colleges and the schools into harmonious relationship.

#### ELECTIVE COURSES IN HIGH SCHOOLS.

It is generally agreed that a well-ordered elective system in college is desirable; but if the elective principle is to be extended to the high school, it should be very carefully guarded. It is liable to become the means of avoiding education rather than obtaining it.

Every course of study should be sufficiently flexible to permit easy adaptation to individual needs, but the choice of studies should not be determined by the caprice of boys and girls. The beginnings of all subjects are easy. It should never be possible to drop a study before the pupil has met and struggled with its difficulties. No pupil should be deprived of the opportunity to secure that toughness of mental fiber which is the result of prolonged and strenuous effort.

The elective system has been in successful operation for many years in the evening high schools. Most of the pupils attending these schools are mature, and many, indeed, have had large experience in life; hence the choice of studies made each year is for the most part discriminating and judicious. The pupils select such studies as they believe will be most useful. Evening school courses of study, as a rule, offer the widest possible scope, and some give all the technical and scientific instruction required for a business or professional career. The amount of good these schools do in a community, viewed from both the social and moral side, is inestimable. For good citizenship, general and special training no schools are accomplishing more.

#### PERSONAL RELATION OF TEACHER TO PUPIL.

Moulding of character is a part of school education which has ever been regarded as the best work of educators. The number of pupils that come under the instruction of one teacher

in large and crowded schools prevents the establishment of that close personal relation between pupil and teacher which is the secret of the unconscious influence that touches character. Under the departmental plan generally pursued in large high schools, pupils are instructed by too many different teachers for any special responsibility to be assumed or special sympathy to be felt for individuals. The departmental plan of instruction is undoubtedly the best for high schools; but this should not mean an instructor of one branch only, as with maturer students in colleges. Carried to this extreme in secondary schools, it deprives the immature pupil of that direct sympathetic intercourse with the high-minded teacher which alone gives opportunity for the best influences of the school. Moreover, intellectual narrowness is the inevitable result of long confinement to one department of instruction, in which the scope is limited and very elementary, when compared with a broad outlook over any subject. Fortunate, indeed, are the towns with small institutions and with opportunities for the strongest personal influence, for whatever they may lack in elegance of appointments and urban methods they more than supply in harmonious educational growth.

#### MANUAL TRAINING IN HIGH SCHOOLS.

The law requiring every city in the Commonwealth of 20,000 inhabitants or more to support a manual training department in connection with its high school system has been in operation for five years. Several important schools had previously been established, and since that date gratifying progress has been made in extending this important branch of the public school system. Boston and Cambridge lead, with schools well equipped to give thorough instruction to large classes in freehand and mechanical drawing, carpentry, wood turning, wood carving, pattern making, forging and machine shop practice, in addition to an academic curriculum which includes the most important branches usually taught in high schools. Fall River has had a successful manual training department in the high school for many years; Lynn has a plant which does credit to the city; Springfield has a well-organized school, now occupying an old building, and will

soon erect a new Mechanic Arts High School which will compare not unfavorably with the magnificent high school building of which that city is justly proud. Many other cities have made creditable beginnings, and all will doubtless take up the work in the near future. The results already accomplished abundantly justify the expenditures which have been made, and give promise that the hopes of the most enthusiastic advocates of manual training will soon be realized.

Many of the smaller cities are likely to begin this work tentatively. It is, therefore, desirable to call special attention to points which may be overlooked and mistakes which should be avoided. Too much emphasis cannot be placed upon the fact that the elements of the mechanic arts are taught, primarily, because they are adapted to develop important faculties not cultivated by the usual school exercises. There is danger that vocational ends will receive undue attention. It is both impracticable and undesirable to give in school sufficient practice in any branch of shop work to develop skill and facility which the successful mechanic will deem respectable. It cannot be too often or too clearly stated that it is not the function of the schools to produce skilled mechanics. The course in manual training does, however, serve to reveal mechanical aptitude to its possessor, and leads him to a fortunate choice of occupation.

Again, drawing and exercises which require only the use of hand tools yield larger educational results, in proportion to their cost, than any other features in the mechanical department of a large manual training high school. It is, therefore, a great mistake to expend, for meagre appointments for turning, forging or machine shop practice, any part of an appropriation barely sufficient to equip fully a wood working room. The introduction of any branch of manual training should be delayed until adequate provision can be made for it. The necessary expenditure for thoroughly satisfactory equipment for any form of shop work is a mere trifle, compared with the loss of time on the part of teachers and pupils who are compelled to struggle with inadequate appointments. Attention has been called to these facts because they have been frequently overlooked. They are fundamental and far-reaching

in their consequences, and their importance should be emphasized. The danger is that many of the smaller cities will attempt what they can not do well, while the same expenditure would have enabled them to accomplish desirable results had they confined their efforts within narrower limits.

#### MASSACHUSETTS SCHOOL FUND.

The Massachusetts school fund was established in 1834, at the close of the first third of the passing century. The Board of Education was established three years later. These legislative acts are the foundation of the present organization of our school system. The purpose of the fund was the "aid and encouragement of common schools." The towns were stimulated to make more generous appropriations for public education, and the statistical returns of the condition and growth of the schools were secured, which enabled the Board of Education to frame intelligently and wisely the legislation that has been the inspiration and the safeguard of popular education for two thirds of a century. These acts marked the change from an unrelated mass of schools to a superior system of organization, which was brought about by the persuasive influence of the fund and the wise counsels of the Board of Education, rather than by the enforcement of any general mandatory act. The great force which the State exerted beyond certain requirements as to the maintenance, freedom and attendance upon the schools was mainly in the form of aid and advice.

#### GROWTH OF THE FUND.

A glance at the history of the fund and the varying methods of the distribution of its income will show that it was intended to supplement but in no wise to supplant the efforts of the local committees to maintain their schools.

The fund was to consist of the money in the treasury derived from the sale of lands in the State of Maine, and from the claims of the State upon the United States for military services, together with half of all money thereafter to be received from the sale of Maine lands, and the principal was not to exceed \$1,000,000. Subsequent enactments of the Legislature placed in the fund \$75,000 of the money received by the State



under the provisions of the treaty of Washington, and transferred in 1854 a sufficient number of shares of the Western Railroad Corporation to increase the principal of the fund to \$1,500,000. In 1859 it was provided that one half of the proceeds of the sales of the Back Bay lands in Boston should be added to the principal of the fund; but five years later, under the stress of the civil war, this source of income was diverted to the bounty loan sinking fund, after the principal of the school fund should have reached \$2,000,000. When the State in 1882 sold the Boston & Albany stock, which formed part of the investment, the fund was increased some \$700,000 by the premiums received; and in 1890 a similar amount was placed in the fund by the refunding of the United States direct tax. In 1894 the principal of the fund was fixed at \$5,000,000, \$100,000 to be paid into it annually from the treasury until that sum is reached. The principal at the present time amounts to \$4,370,548.14.

#### DISTRIBUTION OF THE INCOME.

The history of the application of the income of the fund shows that from the beginning it has been used to stimulate the towns to greater exertion for educational purposes, and that aid has been withdrawn when the growth and increasing wealth of the municipalities rendered assistance no longer necessary.

The first apportionment of the income was made by the Legislature in 1835, two years before the State Board of Education was established. One half of the income of the fund was distributed to the several cities, towns and districts, according to the ratio of population; the other half in proportion to the amount of money raised by taxation and expended for the support of schools. Later in the same year a law was enacted providing that the distribution of the income should be in the future according to the number of persons between the ages of four and sixteen. Five years later the distribution was again made according to the ratio of population; but the following year a return was made to the former basis, with the provision that no apportionment should be made to any town that did not raise a sum equal to \$1.25 for

each person of school age. In 1849 the sum to be raised by taxation was increased to \$1.50, and the distribution was based upon the number of persons between the ages of five and fifteen. One half of the income from this period to the present time has been applied to the normal schools and other general educational expenses. This continued to be the basis of distribution of the half distributed to the towns until 1885, when it was enacted that no town should receive benefit from the fund unless the town had raised by taxation and expended for its schools a sum of not less than \$3 for each person between the ages of five and fifteen. This law still continues in force.

As it became evident that the smaller agricultural towns were becoming depleted in population and valuation, the method of distribution was from time to time changed in order to aid these over-burdened communities. The cities and larger towns relinquished their income from the fund for this purpose; and its aid was withdrawn from all towns of over \$10,000,000 valuation in 1874, and subsequently from towns of over \$3,000,000 valuation, — the law at the present time. It was found that no general basis of school population or property valuation would afford the needed aid to small towns with a vanishing population and a fading valuation. To meet this, certain lump sums were allotted to this class of towns in inverse proportion to their valuation, the towns at the same time being forbidden to decrease their effort and stimulated to increase their exertion by a distribution of a portion of the income as a premium upon their local taxation for the support of schools.

#### ADDITIONAL AID TO THE SCHOOLS.

In addition to the direct aid from the school fund, assistance is given to the schools from the State treasury in the following ways: —

1. The sum of \$2 per week of actual service for each specially approved teacher under certain conditions in all towns having a valuation of less than \$350,000. The amount paid under this law in 1899 was \$10,532.19.

2. The payment of the tuition in high schools of other towns of pupils from towns not exceeding \$500,000 valuation. The amount paid under this law in 1899 was \$9,384.92.

3. For the transportation and tuition of State wards in the several cities and towns the sum of \$11,355.80 was paid in 1899.

4. For salaries of superintendents of schools in districts, and for aid to teachers' salaries in such districts, the sum of \$61,250 was paid in 1899.

#### PROSPECTIVE INCREASE OF THE FUND.

The Legislature of 1899 provided for the sale of the common stock of the Fitchburg Railroad held by the State to the Boston & Maine Railroad for \$5,000,000, in fifty-year gold bonds of that road, bearing interest at 3 per cent. per annum; and according to the provisions of section 3 of chapter 408 of the Acts of 1893 practically the income of the bonds is to be annually added to the income of the Massachusetts school fund. When the principal of the fund shall reach \$5,000,000 under the present law these bonds should be placed in, and made a part of, the principal of the school fund. The income from the school fund at the present time in round numbers is \$200,000 annually, owing to its investment in prime securities at a premium paid from the general treasury. One half of this income goes for the expenses of the normal schools and other general educational expenses; and the other half is paid to the towns whose valuation is less than \$3,000,000 under the provisions of chapter 177 of the Acts of 1891,—the main consideration being the valuation of the towns and the proportion which the tax for school purposes bears to the total tax raised by the towns. The amount of income from the Boston & Maine bonds, which is fixed at \$150,000 per annum, should be added to the portion of the income of the fund which is distributed to the towns, making a total to be paid to the towns of about \$250,000 annually at the present time.

#### PROPOSED REDISTRIBUTION OF INCOME.

The present law for the distribution of the fund is inadequate for the proper allotment of this increased sum. It is not an easy matter to effect an equitable distribution, for the reason that so many local considerations affect or modify the necessities of a particular town; but this sum, properly dis-

tributed, should be ample for all necessary and reasonable aid to the towns.

As an indication of the direction in which legislation may be deemed desirable, these suggestions are offered:—

1. Two thirds of the income of the school fund should be apportioned to the aid of common schools.

2. No municipality of over \$10,000,000 valuation should receive aid from the fund.

3. No town should receive aid from the fund whose average valuation per pupil, based upon the average membership of the schools, shall exceed such average for the whole State.

4. No town should receive aid from the fund unless the appropriation of the town for the support of public schools shall be a per cent. of the valuation of the town not less than the average per cent. which appropriations throughout the State bear to valuations.

5. No town should receive any aid from the fund unless the appropriation for the support of public schools equals that of the average throughout the State per pupil for the preceding three years.

6. One half of the amount apportioned to the aid of the schools should be distributed in accordance with the existing law; the other half to be distributed in inverse ratio to the valuation per pupil of the towns based upon the average membership.

With an increase of the school fund such that the amount to be distributed to the towns under existing legislation is not far from double the amount hitherto available, legislation in the direction of a State tax for the purpose of maintaining a uniform standard of schools in the State would be, in the opinion of the Board, neither necessary nor desirable in this Commonwealth.

From the beginning the burden of the schools has been borne almost entirely by the cities and towns. It was never the intention that the income of the school fund, or any form of State aid, should be so employed as to diminish, or render unnecessary, sacrifice and effort on the part of the people. Any considerable sum, whether the income of a fund, or produced by the irritation and uncertainty of an annual State tax,

distributed generally to the towns would tend to weaken rather than to strengthen, to paralyze rather than to stimulate the interest and effort of the people in the organization and care of the schools. The local control within certain general requirements of the State has been one of the elements of strength of the system. The municipalities have grown to be self-reliant and independent. As the local autonomy of the towns is the fundamental principle upon which the civic structure which we know as the Commonwealth is founded, so the voluntary self-sacrifice and self-denial of the people in the maintenance of the public schools lie at the foundation of the intelligence, the virtue and the humanity that are the proudest traits of New England character.

GEORGE H. CONLEY.

ALICE FREEMAN PALMER.

JOEL D. MILLER.

KATE GANNETT WELLS.

FRANKLIN CARTER.

GEORGE I. ALDRICH.

ELIJAH B. STODDARD.

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The undersigned is constrained to dissent from the reasoning and conclusions of the last two paragraphs of the foregoing report. It is, indeed, true that under existing conditions there is no need for the State to resort to direct taxation for the support of the public schools. The municipalities are meeting the demands of education generously. With the aid that can be given now from the income of the school fund even the poorest towns may be pretty well provided with the means of instruction. But there is a principle involved of the utmost importance. The responsibility for the education of the children of the Commonwealth rests, not with the towns, but with the Legislature. Whatever system of education we have in Massachusetts has been created by the Legislature, and there has never been a point in the educational progress of the State at which the Legislature has hesitated to interfere when the public good seemed to demand it. This has been shown notably (1) in the creation of the school fund, (2) in legislation against truancy, (3) in making attendance compulsory for

children of specified ages, (4) in prescribing the length of the school terms, (5) in the abolition of the school districts, and (6) in required supervision. Happily, just now the municipalities are exhibiting a wise activity in providing the necessary facilities in all the different grades of public instruction. There is every reason to hope that this activity may continue indefinitely. But if they should fail, no argument as to the importance of leaving these matters to local control will avail. The Constitution of the Commonwealth, drafted by John Adams, will summon the Legislature to its duty.

ELMER H. CAPEN.

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REPORTS  
OF THE  
BOARDS OF VISITORS  
OF THE  
NORMAL SCHOOLS.

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# STATE NORMAL SCHOOL, FRAMINGHAM.

HENRY WHITTEMORE, PRINCIPAL.

## INSTRUCTORS IN THE NORMAL SCHOOL.

HENRY WHITTEMORE, . . . . .	Psychology, school laws of Massachusetts, school organization and government.
AMELIA DAVIS, . . . . .	Mathematics, astronomy.
ANNA M. CLARK, . . . . .	Natural and physical sciences.
FREDERIC W. HOWE, . . . . .	Chemistry.
LOUISA A. NICHOLASS, . . . . .	Household arts.
SAMUEL C. PRESCOTT, . . . . .	Bacteriology.
LILLIAN ORDWAY, . . . . .	Geography and Latin.
M. ELIZABETH HOLBROOK, . . . . .	History and civil polity.
MARY C. MOORE, . . . . .	English language and literature.
MARY H. STEVENS, . . . . .	French.
JANE E. IRESON, . . . . .	Elocution and reading.
CHARLES F. WHITNEY, . . . . .	Drawing.
FREDERIC W. ARCHIBALD, . . . . .	Singing.
MARY BENNETT, . . . . .	Gymnastics.
SUSAN M. EMERSON, . . . . .	Sloyd.

## INSTRUCTORS IN THE PRACTICE SCHOOL.

SUSAN M. EMERSON, . . . . .	Ninth grade.
ANTOINETTE ROOF, . . . . .	Seventh and eighth grades.
NELLIE A. DALE, . . . . .	Fifth and sixth grades.
ALICE V. WINSLOW, . . . . .	Third and fourth grades.
ELIZABETH A. MALLOY, . . . . .	First and second grades.
PHEBE M. BEARD, . . . . .	Kindergarten.
ANNA F. CLAFLIN, . . . . .	Assistant in seventh and eighth grades.

## PRESSING NEEDS OF THE SCHOOL.

In the last report of this school, mention was made of the need for more class rooms and for larger dormitory accommodations. This need has now become very pressing, as the attendance has again increased. We need houseroom for 25 more boarding pupils, and an additional building large enough for a properly equipped chemical laboratory, for sloyd and gymnasium rooms, and for a larger space for the model school. The present laboratory was originally made for a small school, and, according to modern standards, is but poorly equipped. There are now 170 pupils who work in it during a week, or, counting by separate divisions, more than 200. Many of the chemical calculations in the department of household arts are very delicate, and after the apparatus for them is

set up it should not be disturbed; but, as we are now situated, these calculations are interfered with.

Our kindergarten is maintained in one of the boarding-hall parlors, which entails a great deal of wear and tear upon the furniture and much extra labor in carrying it in and out for the school, and where even then we cannot accommodate as many pupils as are desirous to come and as we should like to receive. Moreover, all the lady teachers are restricted to the use of one and the same small room for their reception and study room, and the principal's office is but 13 by 16 feet.

If the Legislature should consider such a building more expensive than it now can erect, we hope that at least it will permit us to put an annex on the south side of Normal Hall, in which we can place the pupils whom we are now obliged to refuse, for it is next to impossible to obtain board in the town for them at the same rate as they pay to the State. Then, with changes that can be made in May Hall, the school building, we can at least be in a better condition than we are at present. Otherwise, this school cannot rank as it should with other normal schools, which are all better equipped than the one at Framingham, which was built long ago, when normal school needs were less than now.

#### THE HOUSEHOLD ARTS DEPARTMENT.

The household arts department alone has brought special pressure upon this school. It came to us as a gift from the Mary Hemenway trustees, and has been liberally supported by them for two years, according to the terms of the gift. It now is wholly dependent upon the State, but its number of pupils has trebled. It is the only department of this kind connected with any of our State normal schools, and enjoys a unique success and fame. The high standard which it brought to us has been steadily maintained in scientific and practical work, while opportunities of enlarging its instruction constantly arise through the relations of the department to the boarding halls, by which the pupils are taught to deal with large quantities and to supervise minute details. Consequently its graduates are filling lucrative positions as teachers and superintendents. Its schoolroom is frankly called the kitchen laboratory, to dis-

tinguish it from the physical and chemical laboratories, where the household arts pupils also work. Miss Amy Morris Homans, for the Mary Hemenway trustees, still extends to us her friendly counsels and their wise benefactions. Nearly all the girls in the eighth and ninth grade in the town schools come to us for instruction in cooking, these 132 children serving as a model school to the pupils of the household arts department. Each of its seniors has a class of these grammar grades for the entire year, and is assisted by one or more of the members of the junior class, who thus are better prepared for their duties as teachers in the senior year. Besides these 132 pupils from the public schools, we have to-day 32 normal students and 10 nurses from the public hospital of Framingham, — a total of 174 students who are connected with the department of household arts.

#### THE TEACHING FORCE.

There have been but few changes among the instructors of the normal school, though we regret to have lost Miss Alma E. Hurd, who resigned this June to be married. Her position has been filled by Miss Mary Bennett, a graduate of the Boston Normal School of Gymnastics, who is physical director of the health of the pupils as well as instructor in gymnastics. Miss Antoinette Roof of Waltham has been added to the faculty of the practice school, as teacher of the seventh and eighth grades. Mr. Charles F. Whitney gives two whole days to the school as instructor of drawing, his one year of service already having been productive of great benefit to both the practice and the normal school.

#### SPECIAL PRACTICE AND OTHER WORK.

Members of the senior normal class are now observing and teaching in the towns of Framingham and Natick.

The work done by special students was conducted in two separate classes, — those who were connected with the everyday work of the school and those who came on Saturdays, teachers from the neighboring towns. The latter began early in the year, and continued their constant and faithful work until graduation day in June.

We have also special classes for teachers on Saturday in French, geography and United States history, these classes being varied each half-year, so as to give as great an opportunity as possible for a selection of work to meet the needs of the largest number, while teachers are also urged to go into as many of the regularly existing classes as they wish.

#### IMPROVEMENTS.

Much has been done during the year in the way of material improvements on the grounds and buildings. A new sidewalk was laid out the entire length of the school property on State Street, as a result of a petition of the residents on this street for a sidewalk, at an expense of about one hundred dollars. The overflow from the steam boilers which flowed into the gutters on State Street was connected with the system of sewerage belonging to the school. Considerable painting was done on the outside of two of the halls.

#### LECTURES.

On Saturday mornings, during the middle of the year, Mr. Samuel C. Prescott gave a course of ten lectures on domestic science to the school and the public, which were full of practical hints for every-day living, and valuable to students who as teachers will deal with the health of the children under their care. Hon. Frank A. Hill and Mr. W. A. Baldwin each gave an address; Mr. Howard and Mr. George W. Cable have given readings; Mrs. Wales of the Woman's Relief Corps spoke on Memorial Day; the glee club of the school gave two concerts; and Mrs. Edmund Kingsbury of Framingham gave a Chopin recital.

#### GIFTS.

A statuette of Apollo from the class of 1900, one of the Venus de Milo from Miss Louise M. E. Jacot, and two fine stuffed specimens of the owl from a friend, through Miss Ireson, have been presented to the school.

#### SPIRIT OF THE SCHOOL.

Generous emulation, increased zeal in study for its own sake apart from its pedagogic value, a broad spirit of culture

and a general tone of buoyancy pervade the school, and enable it worthily to take its place as a training school for teachers, meriting the confidence of the State that it serves.

### STATISTICS.

The statistics of the school for the year are as follows : —

1. Number of pupils admitted, September, 1899, 84. Number graduated, June, 1900, two years' course, 57; of the 57, 47 graduated from the regular two years' course and 10 from the two years' course in the department of household arts. Certificates were given to 5 for a one year's special course and to 1 for a two years' special course. Whole number of pupils for the year 1899-1900, 163.

2. Average age of those admitted, September, 1899, 19 years and 11 months.

3. Occupations of parents: merchants, 14; agents, 10; professions, 8; mechanics, 20; farmers, 14; printer, 1; manufacturers, 3; carpenters, 5; milk dealer, 1; mining engineer, 1; engineer, 1; miscellaneous, 6; total, 84.

4. Residences of the 84 pupils admitted, September, 1899: Massachusetts, — Middlesex County, 42; Worcester County, 9; Norfolk County, 13; Hampden County, 2; Plymouth County, 1; Suffolk County, 1; total, 68. From other States, — Maine, 2; New Hampshire, 5; Vermont, 3; New York, 1; Pennsylvania, 2; Ohio, 1; Iowa, 1; Canada, 1; total, 16. From Massachusetts, 68; from other States, 16; total, 84.

KATE GANNETT WELLS,  
GEORGE H. CONLEY,

*Board of Visitors.*

## STATE NORMAL SCHOOL, WESTFIELD.

CHARLES S. CHAPIN, PRINCIPAL.

### INSTRUCTORS IN THE NORMAL SCHOOL.

CHARLES S. CHAPIN, A.M., . . . . .	Principles of teaching, school economy, school law.
CHARLES B. WILSON, A.M., . . . . .	Natural science.
WILL S. MONROE, A.B., . . . . .	Psychology, historical pedagogy, geography.
EDITH S. COPELAND, . . . . .	Drawing.
EDITH L. CUMMINGS, . . . . .	Manual training, gymnastics.
ADELINE A. KNIGHT, . . . . .	History, literature, English.
MILDRED L. HUNTER, . . . . .	Natural science, mathematics.
STERRIE A. WEAVER, . . . . .	Supervisor of music.

### INSTRUCTORS IN THE TRAINING SCHOOL.

GEORGE W. WINSLOW, . . . . .	Principal.
GEORGE S. WOODWARD, . . . . .	Ninth grade.
ALICE M. WINSLOW, . . . . .	Ninth grade.
MARION R. WINKLEY, . . . . .	Eighth grade.
ANNA M. DOWNEY, . . . . .	Eighth grade.
JENNIE E. STODDARD, . . . . .	Seventh grade.
ELLA J. DOWNEY, . . . . .	Sixth and seventh grades.
EDITH M. ROBBINS, . . . . .	Sixth grade.
E. ABBE CLARK, . . . . .	Fifth grade.
FRANCES L. PARSONS, . . . . .	Fifth grade.
OLIVE E. SHUMWAY, . . . . .	Fourth grade.
FRANCES L. FOSTER, . . . . .	Third grade.
FLORENCE P. AXTELL, . . . . .	Second grade.
MARGARET C. DOHERTY, . . . . .	Second grade.
EUNICE M. BEEBE, . . . . .	First grade.
CLARA M. BUSH, . . . . .	First grade.
EMMA L. HAMMOND, . . . . .	Kindergarten.
ELIZABETH C. JARROLD, . . . . .	Kindergarten.

### CHANGES IN THE TEACHING FORCE.

Will S. Monroe, who has had charge of the department of psychology, pedagogy and geography since Jan. 1, 1897, is spending the present school year in study and travel in Germany, France and England, under leave of absence until Sept. 1, 1901. J. Richard Street, Ph.D., a graduate of Clark University, and an instructor in Mt. Holyoke College and in the Bible Normal College of Springfield, was secured as Mr. Monroe's substitute in psychology and pedagogy. On Oct. 1, 1900, he accepted a call to the chair of pedagogy in Syracuse University, and Charles H. Sears, Ph.D., a Fellow of Clark Uni-

versity and a teacher of much experience, was engaged to continue his work. Mr. Monroe's classes in geography are in charge of Miss Mildred L. Hunter, who has taught in the Westfield Normal School most acceptably for the past three years.

#### THE NEW TRAINING SCHOOL BUILDING.

With the additional appropriation of \$12,000, made by the Legislature of 1900, the new training school building has been completed and thoroughly equipped. The building is plain and substantial, being made of culled brick, with trimmings of cut brown stone. It contains ten class rooms, a large library, a principal's office, a teachers' room, an assembly hall with opera chairs for 400, play rooms and bicycle rooms; it is furnished with an electric time service in each schoolroom and in the assembly hall, thermostatic heat control, electric bells, and, in a word, with all facilities for making the work of a public school convenient and effective.

With the opening of this building Sept. 10, 1900, 11 teachers were elected by the school committee of Westfield on nomination of the principal of the normal school. The teachers formerly employed by the State in the six training school-rooms in the normal school building on Court Street are retained, the entire teaching force in the combined training schools being 18, exclusive of special teachers and supervisors. The entire number of children attending the training school is about 650. For the first time in the history of the school it is now possible for each member of the junior class to spend one half-day each week in observing skilled teachers at work, and for each member of the graduating class to teach under expert supervision for an entire term in one room.

#### THE FUTURE OF THE SCHOOL.

With a new and finely equipped normal school building, a training school adequate to the proper training of as many pupil teachers as are likely to be admitted, and a constituency of such cities and towns as Springfield, Holyoke, Chicopee, Northampton, Westfield, West Springfield and others of considerable population, the future of the Westfield Normal School seems assured so far as numbers of pupils and facilities for work are concerned. The school now numbers 126, and sev-

eral former pupils, now absent for various reasons, are likely to return during the year. For the past four years the membership of the school has steadily increased. The closing of the Tapley Training School, maintained by the city of Springfield for the past twelve years, has brought several desirable pupils to the Westfield Normal School, and is likely to add materially to our numbers each year.

#### DORMITORY NEEDS.

The growth of the school, however, has caused some embarrassment at the dormitory. Every room has been occupied during the school year, and the problem of accommodations may soon become serious. The laundry facilities, which were ample for a school of half the present number, are entirely inadequate at present, and new machinery is imperatively needed. The lodging of pupils on the fourth floor, to be reached only by climbing three long flights of steep stairs, puts a serious strain upon the strength of young women. The recommendation of the latest report, that an elevator be added to the equipment of the building, is here renewed. Moreover, the number of bath rooms and closets is insufficient for the use of so many roomers, and additional bath tubs and closets should be set in place during the coming summer vacation. The heating apparatus, which has not been renewed for twenty-five years, needs so many repairs, that economy, as well as the comfort of the pupils, demands the purchase of a new boiler. It is estimated that \$5,000 will put the building in proper condition for its present uses, and, inasmuch as no special appropriation for the equipment of the dormitory has been asked of the Legislature since the erection of the building in 1872, except one for fire escapes, made necessary by a general statute, the expenditure of the above sum is urged as a measure of genuine economy, if the State wishes to keep its buildings in a proper condition.

#### LECTURES.

During the year lectures have been given before the school as follows : —

1900.

Jan. 17. Liquid Air, — Charles B. Wilson.

Jan. 30. Music in Education, — Julia E. Crane.



Mar. 15. Good Art, — Henry T. Bailey.

Apr. 14. The Birds of Westfield, — Mrs. Kate Tryon.

Oct. 11. The Personal Element in Teaching, — Mrs. Kate Gannett Wells.

Oct. 26. Thackeray, — Leon H. Vincent.

### STATISTICS.

The statistics of the school for the year 1899–1900 are as follows: —

1. Number of pupils admitted to the Westfield Normal School since its organization, 4,322; number graduated since 1855, 1,639. Number graduated in June 1900, 55, — all women. Present number of pupils, 126. Number of different pupils in attendance from Jan. 1, 1899, to Jan. 1, 1900, 202. Number examined for admission in 1900, 101; number rejected, or who did not enter, 21; number entering in September, 1900, 80.

2. Average age of pupils admitted, 20 years and 4 days.

3. Residences, by States and counties, of those who entered in September, 1900: Hampden County, 46; Hampshire County, 12; Berkshire County, 9; Franklin County, 4; Worcester County, 1; total from Massachusetts, 72. Maine, 1; New Hampshire, 1; Vermont, 4; Connecticut, 1; New Jersey, 1; total from other States, 8; total number, 80.

4. Residences, by towns, of those who entered in September, 1900: Springfield, 15; Holyoke, 13; Westfield, 10; Ware, 4; Dalton, 3; West Springfield, 3; Chicopee, 2; Hinsdale, 2; Northampton, 2; Northfield, 2; Russell, 2; Worthington, 2; Amherst, Becket, Brimfield, Easthampton, Enfield, Great Barrington, Greenfield, Hardwick, Plainfield, Richmond, Stockbridge, Turners Falls, 1 each; total, 72; from other States, 8; total, 80.

5. Occupations of parents: farmers, 9; mechanics, 9; manufacturers, 5; laborers, 4; contractors, 3; architects, 2; blacksmiths, 2; clerks, 2; masons, 2; merchants, 2; real estate agents, 2; watchmen, 2; clergyman, bookkeeper, hotel keeper, collector, fireman, coachman, patrolman, overseer, car inspector, operative, physician, commercial traveler, postman, janitor, insurance agent, druggist, plumber, 1 each; not reported, or no occupation, 19; total, 80.

6. Number of volumes added to the reference library during the year, 232. Total number of volumes and pamphlets in the library, 3,927.

J. D. MILLER,

FRANKLIN CARTER,

*Board of Visitors.*

# STATE NORMAL SCHOOL, BRIDGEWATER.

ALBERT G. BOYDEN, PRINCIPAL.

## INSTRUCTORS IN THE NORMAL SCHOOL.

ALBERT GARDNER BOYDEN, A.M., . . . . .	Educational study of man, the principles and the art of teaching, school organization, school government, school laws of Massachusetts and the history of education.
ARTHUR CLARKE BOYDEN, A.M., vice-principal,	Natural science, history and civil polity.
FRANZ HEINRICH KIRMAYER, PH.D., . . . . .	Latin, Greek, French, German.
WILLIAM DUNHAM JACKSON, . . . . .	Physical science, mathematics, English literature.
CHARLES PETER SINNOTT, B.S., . . . . .	Geography, physiology and hygiene, physical science.
HARLAN PAGE SHAW, . . . . .	Chemistry, mineralogy, industrial laboratory.
FRANK ELLIS GURNEY, . . . . .	Classics, bookkeeping, astronomy.
ISABELLA SARA HORNE, . . . . .	Vocal culture and reading.
CLARA COFFIN PRINCE, . . . . .	Vocal music, algebra, geometry.
FANNY AMANDA COMSTOCK, . . . . .	Arithmetic, rhetoric, botany.
EMILY CURTIS FISHER, . . . . .	English, grammar, geometry.
ELIZABETH HELEN PERRY, . . . . .	Drawing.
LILLIE EVELINE MERRITT, . . . . .	Assistant in drawing.
BESSIE LOUISE BARNES, . . . . .	Physiology and hygiene, physical training.
LILLIAN ANDERSON HICKS, . . . . .	Supervisor of practice work in the model school.

## INSTRUCTORS IN THE MODEL SCHOOL.

BRENELLE HUNT, . . . . .	Principal.
ADELAIDE REED, . . . . .	Ninth grade.
MARTHA MAY BURNELL, . . . . .	Eighth grade.
HANNAH ELIZABETH TURNER, . . . . .	Seventh grade.
NELLIE MABEL BENNETT, . . . . .	Sixth grade.
JENNIE BENNETT, . . . . .	Fifth grade.
MARY LUCINDA WALLACE, . . . . .	Fourth grade.
SARAH WHEATON TURNER, . . . . .	Third grade.
SARAH ELLEN PRATT, . . . . .	Second grade.
FLORA MAY STUART, . . . . .	First grade.

## INSTRUCTORS IN THE KINDERGARTEN.

ANNE MORGAN WELLS, . . . . .	Principal.
FRANCES PLYMPTON KEYES, . . . . .	Assistant.

## A PROSPEROUS YEAR.

The Bridgewater school has moved on during the past year with a vigorous life in all its departments, under the skilful guidance of its experienced instructors. The assembly hall has

been crowded with men and women eager to avail themselves of the advantages offered in the several courses of study. Every room in the residence halls has been occupied and several students have had to seek places outside.

The school offers five courses of study: the two years' course, which includes only English studies; the four years' course, which includes the studies of the two years' course and advanced English and classical studies; the three years' course, which includes the studies of the two years' course with electives from the advanced studies; the kindergarten course, which is two or three years, according to the needs of the student; special courses of one year, which are for graduates of colleges and normal schools and teachers of five years' experience. The educational study of man is required in this course; the other studies are elective. Forty students took the special course the last year.

The attendance has steadily increased notwithstanding the opening of the four new normal schools in the State. There has been a noticeable improvement in the qualifications of candidates for admission, but there is still need of greater attention to the study of the sciences in the high schools.

In the June and September examinations of this year, 1900, 184 applicants appeared. Of these, 27 came for examinations preliminary to entrance in 1901; 157 sought admission for this year, and 146 were received. The number in attendance is 283.

There has been no change of instructors during the year in either the normal or the model school departments.

#### IMPROVEMENTS.

A special appropriation of \$2,400 was made by the last Legislature for painting, outside and inside, Woodward Hall and Normal Hall, and for furnishing Normal Hall with Venetian blinds. This has been done in a satisfactory manner, at an expenditure of \$2,339.24. The special appropriation of \$3,300 for new tables, drawers and cases for the mineralogical, physical and chemical laboratories, and tables for drawing classes, has been expended, and these rooms have now a first-class equipment.

## GENERAL CATALOGUE FOR SIXTY YEARS.

A general catalogue of the school for the sixty years it has been in operation has been issued, prepared from the answers to circulars sent to each person whose address was not well known. This gives the alumni arranged in classes as they entered the school, with their residence at the time of admission, the time they were in school, their present occupations, their present address, and the date of death of those deceased, so far as known. Some record of nearly ninety-five per cent. of all who have attended the school has been obtained.

The school has had three principals. Nicholas Tillinghast, the first principal, served thirteen years. Marshall Conant, the second principal, served seven years. The present principal has served since August, 1860.

The following table shows some of the results, as gathered from the returns made : —

## MR. TILLINGHAST'S ADMINISTRATION.

ADMISSIONS.			GRADUATES.			NUMBER OF YEARS OF TEACHING.			AVERAGE OF TEACHING IN YEARS.	
Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.
344	477	821	226	342	568	2,587	2,989	5,576	11	8.5

## MR. CONANT'S ADMINISTRATION.

168	249	417	135	202	337	1,362	1,797	3,159	11	9
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## MR. BOYDEN'S ADMINISTRATION.

772	2,748	3,520	471	1,616	2,087	4,659	13,682	18,341	10	8
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## TOTALS FOR THE SIXTY YEARS.

1,284	3,474	4,758	832	2,160	2,992	8,608	18,468	27,076	-	-
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Two hundred and sixty towns of Massachusetts have sent to the school 4,107 students. Plymouth County has sent 1,415; Bristol, 674; Norfolk, 603; Middlesex, 440; Barnstable, 262; Worcester, 237; Suffolk, 163; Essex, 147; Nantucket, 60; Franklin, 26; Dukes, 24; Hampden, 24; Berkshire, 22;

Hampshire, 10. Twenty-three other States of the Union have sent 606 students. Eleven foreign States have sent 45 students.

Fifteen of the male graduates of the school have become principals, and thirty-five others have become instructors, in State normal schools.

#### STATISTICS.

The statistics of the school for the year ending Aug. 31, 1900, are as follows:—

1. Number of students for the year, 285, — 47 men, 238 women; number in the entering class, 132, — 20 men, 112 women; number of graduates for the year, 93, — 10 men, 83 women; number receiving certificates for special courses, 32, — 3 men, 29 women.

2. The whole number of students who have been members of the school is 4,755, — 1,283 men, 3,472 women. The number who have received certificates or diplomas is 3,117, — 845 men, 2,272 women; of whom 258 have graduated from the four years' course, — 133 men, 125 women.

3. Of the 285 members of the school for this year, Plymouth County sent 74; Bristol, 41; Norfolk, 40; Middlesex, 23; Suffolk, 14; Essex, 13; Barnstable, 12; Worcester, 11; Hampden, 3; Dukes, 2; Berkshire, 1; Franklin, 1; the State of New Hampshire, 18; Maine, 15; Vermont, 5; Connecticut, 4; Pennsylvania, 2; New York, 1; Rhode Island, 1; Mexico, 2; New Brunswick, 1; Syria, 1. Total from Massachusetts, 235, 12 counties and 91 towns being represented; other States and countries, 50.

4. The distribution of the students for the year was as follows: special courses, 40, — 5 men, 35 women; four years' course, 58, — 23 men, 35 women; intermediate course, 24, — 7 men, 17 women; two years' course, 163, — 12 men, 151 women.

5. The average of those admitted was 21 years and 5 months; of the men, 20 years and 1 month; of the women, 21 years and 8 months.

6. Of the 132 admitted, 7 came from colleges, 14 from normal schools, 111 from high schools; of these, 48 had taught.

7. The occupations of the fathers of those admitted were given as follows: mechanics, 42; farmers, 30; merchants, 8; sea captains, 4; government employees, 4; provision dealers, 3; lawyers, 3; engineers, 3; contractors and builders, 2; real estate agents, 2; commercial agents, 2; clergymen, 2; physicians, 2; manufacturers,

2; bookkeepers, 2; teacher, printer, overseer, fireman, janitor, railroad conductor, livery stable keeper, electrician, milkman, express agent, forester, teamster, laborer, patent business, 1 each; not living, 7.

8. Of the 132 students admitted, Taunton sent 7; Boston, 6; Bridgewater, Brockton and Quincy, 5 each; East Bridgewater and New Bedford, 3 each; Abington, Braintree, Chatham, Dennis, Franklin, Fall River, Middleborough, Milton, Newton, North Attleborough, Rockland, Sandwich, Stoughton, Weymouth and Whitman, 2 each; Acton, Amesbury, Ashby, Ashland, Barre, Bellingham, Bourne, Canton, Chelsea, Cottage City, Dedham, Easton, Fairhaven, Groton, Hingham, Holyoke, Lawrence, Marshfield, Marion, Mattapoisett, Merrimac, Methuen, Norwell, Provincetown, Randolph, Reading, Scituate, Sherborn, Stoneham, Sturbridge, Tisbury, Upton, Uxbridge and Wayland, 1 each; Maine, 11; New Hampshire, 11; Vermont, 4; Connecticut, 2; New York, 1; Pennsylvania, 1; Mexico, 2; New Brunswick, 1; Syria, 1.

ALICE FREEMAN PALMER,  
GEORGE I. ALDRICH,

*Board of Visitors.*

# STATE NORMAL SCHOOL, SALEM.

WALTER P. BECKWITH, PRINCIPAL.

## INSTRUCTORS IN THE NORMAL SCHOOL.

WALTER P. BECKWITH, A.M., Ph.D., . . . . .	Psychology, pedagogy, school laws.
ELLEN M. DODGE, . . . . .	English literature.
HARRIET L. MARTIN, . . . . .	Algebra, geometry.
JESSIE P. LEAROYD, . . . . .	Botany, English grammar.
CHARLES E. ADAMS, . . . . .	Physics, chemistry.
CHARLES F. WHITNEY, . . . . .	Drawing, art.
MARY A. COMEY, . . . . .	History, penmanship, arithmetic.
WILLIAM C. MOORE, S.B., . . . . .	Mineralogy, geology, geography.
M. ALICE WARREN, . . . . .	Biology, physiology, physical training.
FLORENCE M. SNELL, . . . . .	English literature.
VESTA H. SAWTELLE, . . . . .	Music.
FLORENCE P. SALISBURY, . . . . .	Reading, physical training.
ISABELLA G. KNIGHT, A.B., . . . . .	Secretary, librarian.
GERTRUDE B. GOLDSMITH, A.B., . . . . .	Biology.
MAUDE M. BRICKETT, . . . . .	Mineralogy, geography.

## INSTRUCTORS IN THE MODEL SCHOOLS.

MAUDE S. WHEELER, . . . . .	Fifth and sixth grades.
CASSIE L. PAINE, . . . . .	Fourth grade.
MARY E. JAMES, . . . . .	Third grade.
D. FRANCES CAMPBELL, . . . . .	Second grade.
M. MAUD VANSTON, . . . . .	First grade.
HARRIET E. RICHMOND, . . . . .	Kindergarten.
HARRIET S. WARREN, . . . . .	Kindergarten (assistant).

## LIMIT OF ACCOMMODATION.

The following report of the Salem Normal School, for the year ending June 27, 1900, is respectfully submitted. There was, during the year, a marked increase in the number of students registered, the increase amounting to over thirty per cent. At the same time, the tests for admission were applied with increasing strictness. The membership of the school has nearly or quite reached the limit of the accommodations in the school building; and, in the opinion of the principal, it is about as large as should be included within one school. Such a school should not have at any time so large a number of students that it is not entirely practicable for the principal at least to feel himself well acquainted with all of them, to the end that he may understand their elements of strength and of weakness, and thus be able to give discriminating and just

statements to school authorities who are contemplating appointing any of them to positions. A given normal school graduate may be well fitted and trained for a given position, while for other positions such fitness may not exist and her training may not be adequate. It is an important part of a principal's duty to understand these differences, and to co-operate with school authorities and his own graduates in placing the latter in such places, and only in such places, that their success may be reasonably well assured. It is a gratifying fact that the recent graduates of this school are nearly all engaged in teaching, and it is also a source of satisfaction that they seem to attain more than ordinary success in so large a proportion of cases.

#### EXTENSION OF WORK.

The two years' course of study being now upon a well-established basis, and its scope and quality being clearly determined, the principal is of the opinion that the time has come when some further work should be provided. He recommends the establishment of a three years' course, having in view the especial purpose of preparing teachers for positions of unusual difficulty and responsibility in the upper grades of the grammar schools. Such a course should include, in addition to the work of the two years' course, some definite study of the history of education, and especially of the history of the Massachusetts school system, some study of the work of school organization and supervision, a further consideration of grammar school geometry and algebra, and a study of the methods of teaching either French or Latin. It would also be desirable to give some training in the handling of simple tools. A considerable study, through observation, of various schools, and such practice as can be secured, is also, of course, implied. It is felt that a sufficient number of students would be attracted to such a course to make it useful and not too expensive. The services of one additional teacher would be necessary if such a course were added to the work of the school.

#### THE KINDERGARTEN.

The popularity of the model schools in the community whose children it receives continues. This was illustrated by a very



significant event during the past summer. The city of Salem having withdrawn its support from the kindergartens of the city, and the board of visitors of this school not deeming it advisable for the State to support a kindergarten in the building without assistance, the citizens of South Salem raised the sum of \$750 by subscription, — that having been the contribution of the city hitherto, — in order that the kindergarten might be continued on the same basis as before. So marked a token of confidence was as gratifying as it was unusual. All the schools of our model system—one room having been added by the co-operation of the city—have been successful and efficient during the year. More than the usual number of changes among the teachers have been necessary for the school year 1900–1901, and there is confidence that there will be no deterioration. There are now, in addition to the kindergarten, the first six grades provided, and it is expected that, with the continued co-operation of the city, additions will yearly be made until the system is complete to the high school.

A serious effort has been made to bring the normal school and the model schools into close relations. A strong factor in this is the work which is done in the model schools by the normal school teachers. The music and drawing are supervised by the teachers in those departments of the normal school, and all the work in geography is done in the same way. In addition, other teachers of the normal school also give special lessons from time to time, and are constantly in touch with the work. From all these sources there are many elements of a practical nature added to the work of the normal school itself.

There were no changes in the teaching force of the normal school during the year. Miss Mary A. Comey was absent on leave from March 1 until the end of year, and her work was very acceptably taken by Miss Sarah L. Baker of Malden, and by Miss Gertrude B. Goldsmith, a special student in the school.

#### STATISTICS.

The usual statistics are here given :—

1. The entire number of students belonging to the school during the year was 231. Of this number, Essex County sent 114; Middle-

sex, 75; Suffolk, 15; Plymouth, 2; Berkshire and Hampshire, 1 each. The State of New Hampshire sent 14; Maine, 6; Vermont, 3. The whole number of students connected with the school since its opening in September, 1854, is 4,526.

2. The number of students admitted to school during the year was 127, of whom 116 were members of the junior class. Of these, 19 had had previous experience in teaching. Of the number admitted, Cambridge and Haverhill sent 9 each; Salem, 8; Beverly, 7; Medford, 6; Revere and Topsfield, 5 each; Boston, Chelsea, Lynn and Malden, 4 each; Everett, Lawrence, North Reading, Rockport and Wakefield, 3 each; Amesbury, Boxford, Danvers, Melrose, Middleton, Newburyport, Peabody and Swampscott, 2 each; and Andover, Georgetown, Gloucester, Groveland, Ipswich, Manchester, Methuen, Newton, Reading, Somerville, Stoneham, Waltham, West Newbury and Winchester, 1 each. From New Hampshire came 9; from Vermont, 3; from Maine, 2. The average age of those received into the junior class was 18 years and 8.2 months.

3. The occupations of the fathers of the new students are as follows: merchants and traders, 35; mechanics, 26; farmers, 14; laborers, 15; public officials, 9; overseers, 7; clergymen, 3; printers, 2; manufacturers, 2; lawyer, civil engineer, dentist, bookkeeper, teacher, 1 each; unknown, 9.

4. The number of graduates from the two years' course, June 27, 1900, was 80. Certificates for one year's special course were awarded to 7. The total number of graduates from the two years' course in 86 classes is 2,360; number of those receiving certificates for one year's special course, 9.

ELMER H. CAPEN,  
GEORGE I. ALDRICH,  
*Board of Visitors.*

# STATE NORMAL ART SCHOOL, BOSTON.

GEORGE H. BARTLETT, PRINCIPAL.

## INSTRUCTORS.

GEORGE H. BARTLETT, . . . . .	Historic ornament, principles of design, blackboard illustration.
ALBERT H. MUNSELL, . . . . .	} Drawing and painting from the antique figure and life model, composition, artistic anatomy.
EDWARD W. D. HAMILTON, . . . . .	
ERNEST L. MAJOR, . . . . .	
ANSON K. CROSS, . . . . .	} Free-hand drawing, light and shade, perspective, model drawing theory.
RICHARD ANDREW, . . . . .	
MERCY A. BAILEY, . . . . .	Light and shade drawing from animal form, water color painting from still life.
VESPER L. GEORGE, . . . . .	Design, free-hand drawing, light and shade.
GEORGE JEPSON, . . . . .	Descriptive geometry, mechanical drawing and shop work.
CYRUS E. DALLIN, . . . . .	Modeling from antique and life, composition.
ANNIE E. BLAKE, . . . . .	Modeling and casting, design in the round.
HARRY J. CARLSON, . . . . .	Building construction, architectural drawing and design.
M. LOUISE FIELD, . . . . .	} Drawing in the public schools.
WILHELMINA N. DRANGA, . . . . .	
JOHN L. FRISBIE, . . . . .	Ship draughting.
ANNA M. HATHAWAY, . . . . .	Curator.

## STANDARD FOR ADMISSION.

The policy of the Board in raising a few years ago the standard for admission to all normal schools has been of special value to the Normal Art School, since its pupils now come not only better prepared for the instruction of Class A, but are equipped with a more determined and sincere purpose to gather the divers meanings of art into the one function of the teacher. They now realize that the training of others to become teachers in their turn has a greater significance than the creations of an artist of average ability. Even if the word normal implies limitations in the myriad applications of art, it carries with it a wealth of power which our school could not easily forego.

## MODIFICATIONS OF THE CURRICULUM.

The curriculum of the school widens with each year, its courses gain in continuous thoroughness, and wherever lessened

performance has obtained one year, right there is placed the next year more insistence upon better results. Thus this term larger emphasis has been placed upon study of the antique and more time allotted to it, for in the growing appreciation of color it became evident that less attention had been paid to correct rendering of form than is indispensable to either artist or teacher. At the same time, work in water color has been more freely introduced into the public school class, as some knowledge of it is now demanded from even the pupils of the primary schools, where our graduates may teach. We thus follow the trend of the public school methods in drawing, while yet endeavoring to develop independence and individuality in our pupils, for our school should lead as well as follow.

The blackboard drawing of this class, taught by the principal, has been productive of benefit to the whole school, in encouraging free and rapid expression of ideas or truths to be illustrated in the giving of a lesson. "Pose" drawing is encouraged; yet the value of such drawing merits most careful consideration, especially when it is introduced into primary departments. The reaction from possibly too much drawing from models or of type forms has resulted again perhaps in too large a freedom in choice of subject and in time sketches from life. A study of balance of parts, of harmony and rhythm in composition, may be the corrective from either extreme; it is at least for this school to endeavor to seize the salient points in all good methods of teaching and so to appropriate them unto itself that the vitality of the school shall be constantly heightened and its wisdom justified.

#### EXHIBIT OF WORK AT THE PARIS EXPOSITION.

As a gold medal was bestowed upon this school by the award of the Paris Exposition, its silent testimony is proof of the excellence of the work there presented by our pupils; for the medal was awarded by a commission of experts, because of the educational value of the scope of instruction in the school and the logical relationship of its studies to each other. Of still greater value is the request, just received from the "Ministère de l'Instruction Publique et des Beaux Arts de France, for the exhibit of the Normal Art School for the Musée-Pedagogique

under the control of the ministry," — a request that is gladly granted.

#### FACULTY OF THE SCHOOL.

The faculty of the school is harmonious and unflagging in zeal and skill, each member of it being widely known by his individual work in industrial or pure art, and the school thus gaining from their acknowledged ability.

#### YOUNG MEN AT THE SCHOOL.

Reference was made last year to the lessening number of young men who were in the school with the intention of becoming teachers, yet each one of the gentlemen graduates of last June has obtained a position as superintendent or supervisor, the salary demonstrating the rank of the position as above that of the usual teacher of drawing. It is to be hoped that, as the monetary worth of such positions is recognized, more young men will join the school, content to begin as teachers, yet looking forward to promotion.

#### GIFTS.

A large number of very valuable photographs has been presented to the school by Mrs. Herbert Dumaresq, which were selected abroad for her by Mr. Ernest L. Major, one of the faculty of the school.

#### LECTURES.

A notable course of lectures was given in the winter of 1900 by Ralph Adams Crane, Henry Turner Bailey and F. Holland Day; also, by Charles Eliot Norton, LL.D., whose benignity and inspiration made a deep impression upon the pupils.

#### STATISTICS.

The statistics for the school from Oct. 2, 1899, to June 21, 1900, are as follows: —

1. Total number of students, 303, — males, 52; females, 251. Number in attendance at the present time (Nov. 1, 1900), 280.
2. Average age of students, 22.4 years.
3. Graduates in June, 1900: public school class, 25; class in mechanical drawing, 6; class in industrial drawing, 15; total, 46.

4. Appointments since Oct. 1, 1899, of past pupils to be teachers and supervisors of drawing, which have been reported to date (Nov. 1, 1900), 22. Returns have not yet been received from many who, there is reason to believe, are teaching.

5. Number of students from the several counties in the State, 1899-1900: Barnstable, 1; Berkshire, 4; Bristol, 2; Essex, 18; Hampden, 4; Hampshire, 3; Middlesex, 103; Norfolk, 32; Plymouth, 7; Suffolk, 89; Worcester, 20.

6. Students from other States are distributed as follows: Maine, 4; New Hampshire, 1; Vermont, 4; Rhode Island, 1; Connecticut, 4; Pennsylvania, 2; Missouri, 1; Michigan, 2; Indiana, 1. Total from other States and Massachusetts for the year, 303.

7. Occupations of fathers of students, 1899-1900: professions, 16; insurance, 2; manufacturers, 9; contractors and builders, 16; merchants and traders, 35; farmers, 13; teachers, 6; mechanics, 21; commercial business, 23; other callings, 78; total, 219. Deceased, 63; retired, 21; total, 303.

KATE GANNETT WELLS,  
GEORGE H. CONLEY,  
E. B. STODDARD,

*Board of Visitors.*

# STATE NORMAL SCHOOL, WORCESTER.

E. HARLOW RUSSELL, PRINCIPAL.

## INSTRUCTORS.

E. HARLOW RUSSELL, . . . . .	Theory and art of teaching, reading, psychology of childhood, English composition.
REBECCA JONES, . . . . .	Supervision of apprentices, elementary methods, sewing, cooking.
CHARLES F. ADAMS, . . . . .	Arithmetic, geography, geology, physics.
HELEN F. MARSH, . . . . .	Music, drawing.
ELLEN M. HASKELL, . . . . .	History of education, civics, general method, English.
ARABELLA H. TUCKER (clerk), . . . . .	Botany, penmanship.
EDWARD L. SUMNER, . . . . .	Choral singing.
Mrs. LOUISE R. DREW, . . . . .	Head kindergartner.
OLIVE RUSSELL, . . . . .	Assistant kindergartner.
ANNA P. SMITH (librarian), . . . . .	Arithmetic, algebra, geometry, civics, methods, supervision of apprentices.
AMY L. BOYDEN, . . . . .	Head teacher of primary class, elementary methods.
HENRIETTA A. MURRAY, . . . . .	Gymnastics, school games.
FRANK DREW, . . . . .	Physiology, psychology, principles of teaching, nature study.
HORACE G. BROWN, . . . . .	English grammar and composition, history, civics.
EMMA A. PIKE, . . . . .	English literature and composition, algebra, methods, supervision of apprentices.
LAURA L. BOICE, . . . . .	History of education, psychology of childhood, general method, nature study, supervision of apprentices.

Ample facilities for observation and practice (apprenticeship) are afforded in the public schools of Worcester, the Memorial Hospital and the Worcester County Truant School.

## IN GENERAL.

The visitors can scarcely regret that they have so little to report concerning the ongoing of this school during the past year, for the fact should imply that the various characteristic excellencies of the school which have been set forth in former reports are still maintained. This is certainly the case. While it is true that there has been no fundamental change in the aim and policy here pursued since its establishment in 1874, it would be far from the truth to say that the school has made

no progress. In its methods of instruction and training and in its selection of fit material to work upon — which we take to be the twofold function of a normal school — there has been a steady advance and no backward step. Perhaps no better evidence of this statement could be adduced than the single fact that the course has been lengthened, and that by the voluntary action of the students, first by a half year, and later by a whole year, — that is to say, by one half its original length. The time thus added is devoted mainly to practice, that is, to apprenticeship, under the most advantageous supervision, in precisely such schools as those in which a large majority of our graduates will be called to teach. Such an opportunity, compared with the best training that was offered in any normal school in this country twenty years ago, appears to us almost to mark an epoch in the preparation of teachers for our public schools. The effect of it, when taken together with the higher standard of admission now required in this State, is obviously to increase the age at which our graduates enter upon their responsible work, securing consequently a degree of maturity and ripeness of judgment considerably above what had to be accepted only a few years since. This substantial gain the visitors have remarked in this school, nor would they by any means imply that a similar advance has not been witnessed elsewhere in the State.

Along with this is to be noticed a more diffused but we believe not less real improvement in the intellectual quality or character of the students and their work. There seems to be now operative an influence which may perhaps be called self-selection, whereby many of the least promising among those who under easier conditions might, and formerly did, aspire to be teachers, do not offer themselves as candidates at all, thus clarifying, as it were, in advance our student body and lightening the burden to the State of wasting effort on unsuitable material.

The visitors find occasion to commend, as they have often done before, the spirit of harmony and mutual good will that exists between the faculty and the students, rendering all rigorous measures of government or “discipline” (in the old sense) wholly unnecessary, and at the same time setting



before the pupils a striking example of the efficiency of a reasonable, friendly and expectant attitude on the part of their teachers.

#### THE FACULTY.

Several important changes have been found necessary during the year in the teaching staff. In January, Miss Ellen M. Haskell, who for many years had been a most accomplished and acceptable instructor here, resigned her place, to the profound regret of all who had been in any way associated with her. A lady of excellent scholarship in several lines, of remarkable intelligence and judgment and of the highest character, Miss Haskell's influence had been strong and salutary in the highest degree. As a member of the faculty she was ever one of the pillars of the school, and scores of our graduates will carry grateful memories of her through life. Miss Laura L. Boice of Philadelphia filled out the remaining term of the year with skill and faithfulness. At the close of the school year, in June, Mrs. Frank Drew (formerly Miss E. Louise Richards), for eight years the enthusiastic and devoted head of the kindergarten, felt compelled to give up teaching for domestic duties, and her place has been taken by Miss Fannie L. Plimpton of Boston. The kindergarten was first organized under Mrs. Drew's competent direction, and had won its high reputation by her skilful management; we can scarcely indulge a better hope for its future than that it may still be maintained at the level where she left it, — a hope, by the way, which we have good reason to expect will be realized. Miss Emma A. Pike (now Mrs. Horace G. Brown), a third valued member of the staff, though of a shorter term of service, likewise left us in June for a more attractive sphere of usefulness, to our regret but with our warmest good wishes. Miss Annie B. Chapman of Saybrook, Conn., a teacher of thorough qualifications, ripe experience and high reputation, has been engaged as Miss Pike's successor. Mr. Robert S. Baldwin, A.M. (Harv.), has been added to the faculty, of whose usefulness, in consideration of his exceptionally high scholarship, good hopes cannot but be entertained.

With these accessions, notwithstanding our losses, the teaching force is kept strong, and will, we are confident, fully

sustain the reputation for superior instruction which this school has so long borne.

#### THE GRADUATES.

The graduate body, now numbering almost 900, deserves special recognition for its loyalty to the school, a sentiment which has found expression in many substantial and helpful ways. Perhaps the most noticeable of these, though by no means the only one, is seen in the class gifts with which the main hall of the school building has been profusely adorned. These works of art consist of pictures, busts, reliefs, vases, etc., all of classic excellence, and represent a value of more than one thousand dollars, a sum voluntarily and gladly contributed from moderate earnings to stand as a token of grateful appreciation of the benefits enjoyed here through the bounty of the Commonwealth.

#### ACKNOWLEDGMENTS.

In addition to the general acknowledgment of many timely favors which perhaps do not call for detailed enumeration here, since they always appear in our annual catalogue, the visitors take special pleasure in expressing their thanks to George H. Palmer, LL.D., of Harvard University, who came to the graduation exercises in June, and gave to the school and its visiting friends a most interesting and acceptable anniversary address on "The Qualifications of the Teacher."

#### STATISTICS.

The subjoined statistics give in condensed form such facts as may afford further evidence of the character and prosperity of the school:—

1. Number of different students for the year, 218.
2. Number admitted in September, 1900, 59; number admitted since the opening of the school in 1874, 1,649.
3. Average age of pupils last admitted, 19 years and 1 month.
4. Residence of pupils last admitted: Worcester County, 54; Hampden County, 1; Berkshire County, 1; Franklin County, 1; New Hampshire, 1; Vermont, 1.

5. Occupations of pupils' parents: mechanics, 14; merchants, 7; farmers, 6; overseers, 3; contractors, 3; laborers, 3; dyers, 2; house painters, 2; bookkeepers, 2; physicians, 2; nurse, engineer, insurance agent, postal clerk, editor, policeman, fireman, teamster, moulder, porter, miller, wool sorter, printer, currier, machinist, 1 each; total, 59.

6. Number in the graduating class in June, 1900, 46; number of graduates since 1876, 891.

7. Average age of last graduating class, 22 years.

8. Library: reference books reported last year, 5,417; volumes added this year, 308; total, 5,725; text-books reported last year, 6,647; volumes added this year, 345; total, 6,992; whole number of volumes in the library, 12,717.

E. B. STODDARD,

ELMER H. CAPEN,

*Board of Visitors.*

## STATE NORMAL SCHOOL, FITCHBURG.

### JOHN G. THOMPSON, PRINCIPAL.

#### INSTRUCTORS IN THE NORMAL SCHOOL.

JOHN G. THOMPSON, . . . . .	Pedagogy.
E. A. KIRKPATRICK, . . . . .	Psychology and child study.
PRESTON SMITH, . . . . .	Natural science.
HELEN M. HUMPHREY, . . . . .	Mathematics and history.
FLORA E. KENDALL, . . . . .	English.
NELLIE B. ALLEN, . . . . .	Geography.
FLORENCE M. MILLER, . . . . .	History.
ANNETTE J. WARNER, . . . . .	Drawing.
ELIZABETH D. PERRY, . . . . .	Music and physical culture.
ABBY P. CHURCHILL, . . . . .	Nature study.
JOSEPH T. WHITNEY, . . . . .	Manual training.

#### INSTRUCTORS IN THE PRACTICE AND MODEL SCHOOLS.

CHARLES S. ALEXANDER, . . . . .	Principal.
ANNETTE J. WARNER, . . . . .	Supervisor of drawing.
ELIZABETH D. PERRY, . . . . .	Supervisor of music and physical culture.
ABBY P. CHURCHILL, . . . . .	Supervisor of nature study.
JOSEPH T. WHITNEY, . . . . .	Supervisor of manual training.

#### INSTRUCTORS IN THE PRACTICE SCHOOLS.

NELLIE B. ALLEN, . . . . .	Supervisor.
MARY I. CHAPIN, . . . . .	Supervisor.
MATTIE A. COLE, . . . . .	Supervisor.

#### INSTRUCTORS IN THE MODEL SCHOOLS.

FLORENCE E. SCOTT, . . . . .	Principal of kindergarten.
GEORGIANA H. JUBB, . . . . .	Assistant in kindergarten.
L. FRANCES JONES, . . . . .	First grade.
IDA M. AUSTIN, . . . . .	Second grade.
CAROLINE HAGAR, . . . . .	Third grade.
ALICE C. PLUMER, . . . . .	Fourth grade.
MARY E. MCCONNELL, . . . . .	Fifth grade.
BLANCHE L. RUSSELL, . . . . .	Sixth grade.
ROLINA H. LEWIS, . . . . .	Eighth grade.
MARY L. MERRILL, . . . . .	Ungraded.

### IN GENERAL.

The work of the Fitchburg Normal School during the past year has developed along the same lines as heretofore. There have been very few changes in the corps of teachers. Miss

Emily M. Smith, principal of the kindergarten, resigned in June, finding greater attraction in a matrimonial alliance. She was succeeded by Miss Florence E. Scott. Miss Scott is a graduate of Miss Lucy Wheelock's Kindergarten Training School, and has taught since graduation in Norwich, Conn. She comes very highly recommended.

Miss Nellie B. Allen, one of the supervisors at the practice school, has been relieved of some of her supervision, and has taken up the teaching of geography in the normal school. Miss Florence M. Miller, in addition to her duties as librarian, has taken part of the work in history, thus relieving Miss Humphrey, who had both mathematics and history. These changes were made to assist in carrying out a plan whereby one teacher has charge of a single subject in all departments, teaching it in the normal school and supervising it in the model and practice schools.

In June three classes were graduated, two from the advanced course and one from the regular course. With so many going out it looked as if the school would be much smaller in the fall than usual. But the entering class was the largest but one since the opening of the school, so that the attendance fully equals that of last year; and, what is still more gratifying, the new class is, as a whole, better fitted for its work than any previous class has been.

#### THE ADVANCED COURSE.

The advanced course, which now consists of one year of teaching in the schools of Leominster or Fitchburg at a salary of eight dollars a week, followed by a year of study at the school, is meeting with increasing favor both from the students and superintendents. The teaching in this course is under the supervision of the normal school faculty, and the salary is paid by the city or town where the teaching is done. We are now unable to take all the students who desired to enter upon this course, and we could have placed in good positions twice as many as have graduated from it. Some of the students who graduated from this course last June have secured positions with a salary as large as that paid by the city of Fitchburg to teachers after seven years' experience.

## NEW MODEL AND PRACTICE SCHOOL BUILDING.

The new model and practice school building, authorized by the Legislature last year, and for which the State appropriated \$27,500 and the city of Fitchburg \$20,000, is nearly ready for occupancy. The building is of brick and granite, 70 by 110 feet. It contains a sub-basement, in which are placed the heating plant and store rooms; a basement, the front part of which is entirely above ground, in which are an office, rooms for the kindergarten and sub-primary, play rooms and lavatories; the first floor, on which are five schoolrooms, cloak rooms, a teachers' room and lavatory; the second floor, on which are five schoolrooms with cloak rooms; and an attic third floor, which can be used for an assembly hall when finished.

The building is well lighted, and the corridors on each story are large enough to allow an entire school to be taken there for free gymnastics. It is heated by a fan system, supplemented by direct radiation. The amount appropriated, which is very small for a building of this size, admitted of only the plainest construction. The building is, however, finished in keeping with the normal school building, is excellent in plan and fully equipped. Special attention is called to the new style of desks in this building. These desks were designed by the principal of the normal school, and it is believed that they will prove superior to any other now in use.

## NEEDED REPAIRS.

Ever since the opening of the normal school building repairs have been accumulating. The concrete walks, of which there is a very large surface, because the building stands so far back from the street, are and have been almost from the first badly cracked. These walks are now constantly crumbling, thus making a fine dust, which is brought into the building by all who enter it. These walks should be re-covered.

The opening of a new street on the east side of the normal school lot requires the building and sodding of a terrace and the laying out of a walk for a distance of some 500 feet.

The wood work on the outside of the building needs repainting. It cannot go another year, and perhaps should not have gone as long as it has.

The paint in the basement of the building, for some reason, probably because the cement was not fully dry when the paint was applied, has always been in a bad condition. This must all be removed, and after the walls are fully dry they should be repainted.

The under floor in some of the rooms in the basement, the manual training room in particular, is decayed, and must be replaced before the school opens another year.

The library, which has been cramped for room, can, with the removal of some of the schools now in the normal school building, be moved in part into another room. This will involve an expense of a few hundred dollars for new cases.

#### DORMITORY.

Each year the need of a dormitory in connection with the school becomes more pressing. At present we have about thirty girls and nine lady teachers rooming and boarding at various places in the city. So far as the teachers are concerned, the present arrangement, while not wholly satisfactory, would not call for any recommendation. The case is wholly different with the students. It is difficult to obtain rooms and board such as the pupils of the school should have at prices that they can afford to pay. There are plenty of rooms at from \$1 to \$3 per week, but a good room, heated, cannot be obtained for less than \$2 per week. Table board varies from \$3.50 to \$4.50. It is very difficult for students to secure rooms and board at the same place. It costs a student of the Fitchburg Normal School from \$5 to \$5.50 per week to get as good room and board as are furnished in the dormitories of other schools for \$4 per week. This in a way is an injustice. Again, parents feel comparatively at ease in regard to their daughters (who when attending normal school are often away from home for the first time), if they are in a dormitory and looked after by the school authorities. Such is not the case, however, when they room and board in families of entire strangers, where they can have little or no supervision by the school. The number of those connected with the Fitchburg Normal School who require board and rooms in the city is large enough to warrant some better arrangement for their care and comfort.

## LECTURES.

Each year brings increase in the appreciation, especially on the part of the public, of the lecture courses given at the school. The past year, without lowering the standard, the number of lectures has been largely increased by the co-operation of the Fitchburg Woman's Club. The musical lectures, the lecture recitals, the Shakespeare lecture readings, were given by the club and the school in union; in addition to which the Fitchburg Woman's Club gave the school a complimentary musical recital, which was one of the most delightful of the entire course. Arrangements have been made whereby the school is again to have the coming winter the added opportunities which come to it through the co-operation of the Woman's Club.

The address at graduation was upon "The Larger Patriotism," by Mr. Edwin D. Mead.

The lecturers and subjects have been as follows : —

Dr. William H. Burnham (four lectures) : —

The Hygienic Aspects of Educational Principles and Methods.

Fatigue and Mental Hygiene.

Some Commonplaces in School Hygiene.

The Teaching Profession.

Prof. Earl Barnes, — The Ideals of English Children compared with those of American Children.

Principal E. Harlow Russell, — What is a Child?

Prof. Louis C. Elson, — History of National Music.

Mr. Edward Baxter Perry, — Pianoforte Lecture-Recital.

Mrs. F. H. Esters, — Musical Recital.

Dr. John Bascom, — Sociology (six lectures) : —

Scope of Sociology.

Economics and Sociology.

Economics and Sociology.

Civics and Sociology.

Railroads.

Trusts.

Fitchburg Woman's Club, — Musical Recital.



President G. Stanley Hall, — Growth and Development of the Mind  
in the Light of Recent Research (six lectures) : —

Recent Methods and Results in the Study of the Soul.

Genetic Psychology : Animals, Children, Races.

Health, Happiness and the Education of the Feelings.

Fear and Anger.

Sex in Education.

Religion and Science in their Relation to Education.

Henry T. Bailey, — A More Beautiful Fitchburg.

Henry A. Clapp, — Shakespeare Lecture Readings : —

Julius Cæsar.

Twelfth Night.

Macbeth.

Maud Conway Blanchard, — Music of Tennyson.

### STATISTICS.

The statistics for the year ending Aug. 31, 1900, are as follows : —

1. Number of students for the year, 110, — 107 women, 3 men ; number in the entering class, 44 women ; number of graduates for the year, 31 from the regular two years' course, 22 from the advanced course ; number receiving certificates for special courses, 1.

2. Whole number of students admitted since the opening of the school, 310, — 304 women, 6 men (this number includes the class entering in the fall of 1900).

3. Number of States represented in the membership of the school for this year, 5.

4. Number of counties in Massachusetts represented, 5.

5. Number of towns in Massachusetts represented, 26.

6. Average age of entering class, 18.8 years.

7. Number who have had experience as teachers, 4.

8. Occupation of parents : machinists, 5 ; teamsters, 4 ; foremen, 2 ; skilled laborers, 9 ; bookkeepers, 4 ; professional men, 3 ; farmers, 6 ; not living, 11.

J. D. MILLER,

ALICE FREEMAN PALMER,

*Board of Visitors.*

## STATE NORMAL SCHOOL, NORTH ADAMS.

### FRANK FULLER MURDOCK, PRINCIPAL.

#### INSTRUCTORS IN THE NORMAL SCHOOL.

FRANK FULLER MURDOCK, . . . . .	Psychology, pedagogy.
ROWLAND W. GUSS, . . . . .	Science.
CHARLES H. STEARNS, . . . . .	Manual training.
LYMAN R. ALLEN, . . . . .	History, history of education, school laws, geography.
ANNETTE M. BARTLETT, . . . . .	Mathematics, music.
MARY A. PEARSON, . . . . .	Drawing, painting.
CATHERINE W. PARKER, . . . . .	English, vocal expression.
ANNIE C. SKEELE, . . . . .	Physiology, physical culture.
DONNA D. COUCH, . . . . .	School organization and man- agement.
EVA L. MCCONKEY, . . . . .	Kindergarten philosophy.

#### INSTRUCTORS IN THE TRAINING SCHOOL.

Mrs. DONNA D. COUCH, . . . . .	Principal.
ROSA E. SEARLE,* . . . . .	Assistant.
HARRIET P. RYDER, . . . . .	Assistant.
HANNAH E. MAGENIS, . . . . .	Assistant.
MARION L. WEBSTER,* . . . . .	Assistant.
AGNES E. WALKER, . . . . .	Assistant.
HANNAH P. WATERMAN, . . . . .	Assistant.
F. A. CLARKE, . . . . .	Assistant.
ADA B. BRAGG, . . . . .	Assistant.
SUSAN G. LOMBARD,* . . . . .	Assistant.
SARAH E. BOWER, . . . . .	Assistant.
EMMA H. TINGUE, . . . . .	Assistant.
MARGARET F. COLLINS, . . . . .	Assistant.
SUSAN A. CLEGHORN, . . . . .	Assistant.
MYRA E. FISKE, . . . . .	Assistant.
ANNIE BOYD, . . . . .	Musical interpretation.
CHARLES H. STEARNS, . . . . .	Manual training.

#### INSTRUCTORS IN THE KINDERGARTEN.

EVA L. MCCONKEY, . . . . .	Principal.
LILIAN S. DANIELS,* . . . . .	Assistant.
ANNIE BOYD, . . . . .	Pianist.
CHARLES H. STEARNS, . . . . .	Manual training.

### CHANGES IN TEACHERS.

The changes in teachers have been as follows: Miss Parker was granted a leave of absence from September to February for study at the University of Chicago, her work meantime

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\* Teachers in the training school and kindergarten whose names are starred also give instruction in the normal school on special phases of professional work.

being in charge of Miss Elizabeth C. Clayton. Miss Edith M. Dunning was unable to return at the close of her leave of absence, and Miss Hannah P. Waterman of Chelsea was appointed to the fifth grade. Miss Foote resigned to accept a position in a private school at Alleghany City, and Miss Ada B. Bragg was appointed to the fourth grade in her place. Miss Hilliard resigned to teach in a school at Redlands, Cal. Miss Myra E. Fiske of Chelsea has been elected to the first grade. Miss Webb, who resigned to be married, was succeeded by Miss Eva L. McConkey of Newton, as principal of the kindergarten department.

#### EMPLOYMENT OF GRADUATES.

The influence of this school upon the public schools is now plainly apparent. Of the 81 graduates of 1899 and 1900, only 4 are not teaching: one is a student at Smith College; another is unable to teach, owing to ill health; and the other two remain at home for good reasons. Of the class of 1900, every graduate had secured a position before the opening of the new school year in September, and there were calls for at least 12 more teachers than the class contained. Our graduates are distributed as follows: in eastern Massachusetts, 8; in the Connecticut valley, 15; in the Berkshire valley, 39, where also 5 non-graduates are teaching; in the hill and valley towns, 14, besides 4 non-graduates; in cities beyond the districts named, 2. Fifty cities and towns are thus included, of which 18 are in Berkshire County and 40 in the four western counties. These facts furnish good evidence that the establishment of the school was wise and timely.

#### THE TRAINING DEPARTMENT.

The growth of the school in efficiency has been marked in all departments. Ideals, both of character and of professional usefulness, have been more completely realized. Purposes have had larger fulfilment, and learning to teach has been a mutual service, through the co-operation of faculty, students and children.

The work of the training department deserves special mention in this report. Students begin work at the training school

immediately upon admission, and continue it through the entire course. The effectiveness of this practice in the professional preparation is most marked in the attitude of the student toward children, in the intelligence and continuity of his effort and in his appreciation of the meaning and value of the work done in the normal department. On the teachers of the training school the effect is not only to produce keen discrimination in the preparation of lessons for children and students, prudence and wisdom in influencing children and students to individual and independent effort, but also to impart that inspiration which strengthens motives and stimulates the will to the best endeavor. In the teachers of the normal department these results are also evident, but beyond this the training school work is for them a constant test of the wisdom of the means and ends they plan and advocate. To all, teachers and students, there comes such a perception of the appropriateness of the co-ordination or of the unsuitableness of the adjustment as is possible only when both the subjects studied and the progress of the child, both the means and the end in education, are constantly and prominently in mind.

Testimony, directly received, as to the success of graduates is often in the strongest terms commendatory of the kind of work done in the training school, and of the wise application of sound theory in forming not only inspiring ideals but also efficient habits. The most vulnerable point in the preparation of teachers in the Massachusetts normal schools relates to this matter of efficient school habits. Scholarship may be scanty and weak, culture may be limited, but the force of bad educational habits, inherited or acquired, and ignorance of the natures of children and youth, are the most harmful defects in teachers, the greatest evils, and must so remain so long as teachers emphasize the means instead of the end in education. To secure efficient school habits stress should be placed upon the continual contact of students with children, upon the candid study of individuals and groups, and the sympathetic teaching of individuals while members of classes; and both processes should be under the inspiring direction of the best teachers. The attainment of such results will require that

training schools should have children, classes and teachers enough to admit of three separate departments; namely, for observation, for teaching and for responsible control, and to render student teaching distinctly profitable to the children taught. The policy thus outlined, intelligently apprehended and judiciously applied, will be attended with so marked an excellence in its issue as to convince unprejudiced minds of its abiding worth. It is sincerely hoped that with the growth of the city and the erection of a new school building in this vicinity a department for training in responsible control may be added to complete this policy.

The study of children's interests and needs has led to modifications of the training school work and to results of importance. In the kindergarten and primary grades later theories have led to the use of large (gift) blocks, — 2-inch, 1½-inch, 1-inch series; the various geometric forms in wood, graded from 3-inch to 24-inch; industrial toys; visits to scenes of real life; sand tables; saws, hammers, screwdrivers and other tools; wooden brick of full size; a separable roof. In gymnastics direct effort is made to foster the spirit of fair play, to co-ordinate formal exercises and athletic games. In manual training the use of tools in the younger grades for large movements and coarse work is followed by teaching in construction and decoration varied according to general needs, individual interests and manual skill. The pupils are taught to regard industrial occupations, skill and honest labor as of more value than the making of a series of models. Our manual training is inadequate, as there is no appropriate work provided for our girls. To further industrial, social and civic pride, scenes of the busiest activity are visited and the principles of right living emphasized. That music may satisfy the aspirations and help to the round development of children and students, there are weekly lessons for all in listening to and interpreting the best music. The progression in this music course is guided partly according to musical principles and partly by the interest and intelligence of the listeners. Those enjoying these lessons are required also to study the lives of the composers. The most vital problem attempted, namely, the direction of school life so as to develop self-control, a feeling of

secure confidence, the resolution to put forth the best endeavor and hearty co-operation with others in effort, has approached solution through the influences just described to a degree never before possible, and possible now only because of constant contact with the children. Furthermore, the effect has been a refashioning of habits of thought and methods of teaching in the various subjects. For all these reasons the importance of the training school can scarcely be overestimated.

#### IMPORTANCE OF A THREE YEARS' COURSE.

The limited time given for the preparation of teachers is a vulnerable point, second only to that already discussed. That within a two years' course the prescribed subjects requiring professional study should be twenty-seven in number, and that a large share of this time should be given to training school work (an average of two and one half weeks to a subject, if one fifth only of the time is allowed for training school work), is likely to result in indifferent scholarship, habits of dependence, ignorance of child nature, and a general inability in the normal schools to meet the present educational requirements of the better elementary schools of our State. A permissive three years' course will probably remain inoperative. A regularly prescribed three years' course, elastic enough to fit the abilities of experienced teachers and "honor" students, is the logical and necessary advance.

#### IMPROVEMENTS AND NEEDS.

The lowest and highest bids for grading and seeding the grounds of the school (excluding purchase of loam and work done by unit or day labor) differed by several thousand dollars. The contract was awarded to Thomas J. Smith of Worcester, at the lowest price made. The work has been done thoroughly, and at a margin of profit which, based upon our own as well as the contractors' computations, does not exceed a few hundred dollars. The advantage which thus accrues to the State is due chiefly to the carefully drawn specifications and constant watchfulness of Mr. John H. Emigh, the engineer in charge, and to his assistant, Mr. H. P. Linnell. The gratitude of the Board is due Mr. Emigh, not only for his

excellent professional judgment and plans, but also because the charge made for his services was merely nominal.

The grading and seeding were completed early in September. Owing to the unexpected and embarrassing increase in the cost of the three west lots we were deprived of fifteen hundred dollars intended for grading. It was found impossible to sod some of the steep banks and the edges of the paths and sidewalks. It was also necessary to omit the construction of concrete walks to and about the buildings. The desirable elevation of the grade in front of the house was also impracticable. Iron gratings for the inlets to the drain pipe could not be bought. The long-continued drought prevented the growth of grass on several large areas, on which it will be necessary the next season again to sow seed. Implements and hose for the care of the grounds should be purchased. It is recommended that an appropriation to these ends be asked for, and also for necessary additional repairs on the building.

Thirty-two students now board in private families ; 26 others bring their midday meal to the school building ; 16 teachers are in need of comfortable accommodations, of whom 10 are now in temporary quarters. The difficulty of securing suitable boarding places, particularly for the teachers, within walking distance of the building (there is no line of cars on Church Street), has been and is likely to be a serious hindrance to the steady progress of the school. The hope that the demand for such accommodations may lead to a supply is not encouraged by experience thus far. That the State may ultimately find, in the want of proper homes both for the teachers and scholars, good ground for the erection of a dormitory, is not impossible.

#### STATISTICS.

Statistics for the year ending Aug. 31, 1900, are as follows : —

1. Number admitted in September, 36, — man, 1 ; women, 35. Whole number enrolled during the year, 92, — men, 2 ; women, 90. Number of graduates, 29. Number receiving certificates for special courses, 2.

2. Average age of entering class, 20 years and 5 months.

3. Whole number of students who have been members of the school, 166.

4. Number of students from Massachusetts: Berkshire County, 72; Franklin, 11; Hampshire, 2; Essex, 1; Barnstable, 1. Vermont, 3. Minnesota, 1. Montana, 1. Cities and towns represented, — Massachusetts, 26; scattering, 5.

5. Occupations of parents: farmers, 16; mechanics, 15; merchants and teachers, 16; overseers, 5; superintendents of mills, 2; salesmen and clerks, 2; engineers, 2; officials, 5; mill workers, 6; expressmen, 2; freight conductor, soldier, insurance agent, hotel proprietor, each 1.

FRANKLIN CARTER,  
E. B. STODDARD,

*Board of Visitors.*



## STATE NORMAL SCHOOL, HYANNIS.

W. A. BALDWIN, PRINCIPAL.

### INSTRUCTORS IN THE NORMAL SCHOOL.

W. A. BALDWIN, B.S., . . . . .	Psychology, pedagogy, history of education.
BERTHA M. BROWN, S.B., . . . . .	Biology, mathematics.
CATHARINE L. BIGELOW, . . . . .	Physical culture.
HANNAH M. HARRIS, Ph.B., . . . . .	English, history.
FREDERIC H. HOLMES, . . . . .	Geography, manual training, physics.
FREDERIC W. KINGMAN, . . . . .	Latin.
MINERVA A. LAING, . . . . .	Chemistry, mineralogy, drawing.
EDMUND F. SAWYER, . . . . .	Vocal music.

### INSTRUCTORS IN THE TRAINING SCHOOL.

RICHARD W. MARSTON, . . . . .	Principal, eighth and ninth grades.
Mrs. NELLIE E. WILBAR, . . . . .	Sixth and seventh grades.
CATHARINE L. BIGELOW, . . . . .	Fifth and sixth grades.
ISADORE M. JONES, . . . . .	Third and fourth grades.
MARIA FULLER, . . . . .	Principal of primary department, second and third grades.
IDA E. FINLEY, . . . . .	First grade.

### IN GENERAL.

The fourth year in the history of the school at Hyannis shows continued progress along many lines. The number of students is about the same as last year, both in the regular and summer sessions. This means that educational facilities are being furnished to about 60 for the regular session and 121 for the summer session of five weeks, or a total which may fairly be estimated at about 75 for a regular school year.

By consulting the table of statistics, it may be seen that nearly half of the students come to this school from outside the county of Barnstable, which is its natural territory. When it is remembered that it is customary for normal schools to draw their students almost entirely from the immediate vicinity in which they are located, and that this school has been in session only three years, this seems somewhat remarkable. This may be accounted for in part by the valuable advertising that the school is getting through its summer session. Here

earnest teachers and superintendents from all over New England learn for themselves some of the many advantages of this school. They are impressed with the healthful, genial climate; the beautiful, well-kept grounds; the substantial, modern buildings, well equipped, fully furnished and always looking clean and new; the excellent board and pleasant home life at the dormitory; the thorough instruction and training; and more than all with the spirit of earnestness, honesty and consideration for others which pervades the whole school life. As these and other advantages of the school become known, it is probable that it may reach its full capacity.

#### TEACHERS.

In June Miss Lina L. Loveridge, the teacher of history and literature, resigned to accept a position which seemed more desirable in the Oswego State Normal School. The vacancy was filled by the election of Miss Hannah M. Harris, a graduate of the Farmington (Me.) State Normal School and of Cornell University. Miss Harris has taught history and English for the past three years in the New Hampshire Normal School.

It was found necessary to secure a teacher for the subject of Latin in the advanced class, and Mr. Frederic W. Kingman, the local superintendent of schools, was secured to give three lessons per week throughout the year.

In the training school Miss Eva A. Hickox, who also had charge of the physical training in the normal school, decided to discontinue teaching, and Miss Catharine L. Bigelow was elected to fill the vacancy. Miss Bigelow is a graduate of the Boston Normal School of Gymnastics, and has studied and taught in London.

#### STUDENT GOVERNMENT.

From the first this school has devoted much attention to student government. It has been customary for the students to elect a school committee, who, with the principal, discuss the most of the questions which are of interest to the whole school and submit them for final decision to the school. They have managed the literary societies of the school, being as-

sisted by teachers appointed by the faculty. Each class has been given an opportunity soon after entering the school to discuss the desirability of watching themselves and one another, and of building up a class spirit which will not admit of such things as, for instance, cheating on examinations. The students have responded so well that the teachers have felt that when necessary they might absent themselves from the room during examinations, and once a year all of the teachers go to Boston for the annual normal school council, leaving the students to manage the school. The president of the senior class leads the morning exercises, and each recitation is in charge of a student selected from his own class.

During the past year this student government has been extended to the dormitory. There are now living in the dormitory 4 teachers, the matron and 45 students. Once in ten weeks the students elect three students, one for each floor, to act as the dormitory committee. The first committee drew up a set of regulations regarding study and visiting hours, which was submitted to the students for approval and adoption, and has been modified whenever a respectable number requested it. The individual members of the committee are responsible for the enforcement of the regulations on their respective floors. The students of each floor are expected to consult with their own monitor regarding any matter not covered by the regulations or any failure to keep to the regulations, in the same manner as they would with their mother or elder sister at home. The monitors have frequent meetings, to consult regarding general tendencies or individual needs, and very often the principal of the school is called in for advice. The principal keeps in very close touch with the dormitory committee, and whenever it seems wise he discusses with the student body wrong tendencies and the desirability of higher standards, and supplements this and the work of the committee by personal interviews with students who are inclined to be thoughtless and careless. The four teachers who board in the dormitory, the matron, the dormitory committee and five other students act as heads of tables. The principal occasionally calls a meeting of the heads of tables, to consult regarding the food, the cooking and all connected with that part of dormitory life.

The matron has full charge of the care of the building, furniture and all connected with the housekeeping department.

The effects of this student government are very evident in the attitude of the students who have been in the school for one year. They are earnest, thoughtful, self-reliant. They understand that with great personal freedom comes great personal responsibility; that each is making his own record, and that upon this record he will be judged by his fellow students and the faculty.

#### IMPROVEMENTS.

During the current year quite a number of changes have been made which have added to the efficiency of the plant. The room formerly occupied by two shower-baths and the water-closets for men has been transformed. The closets and marble wash basins have been placed in a room which has been fitted up next to the men's coat room. The other room has been furnished with five more shower-baths, making seven in all, and with screens and lockers. This room is next the gymnasium, and will now afford fine opportunities for the use of the shower-baths in connection with physical exercise.

The supply of hot water has never been adequate on all occasions in either the school building or the dormitory. A new hot-water boiler with a capacity of eighty gallons has been placed in the dormitory, and so arranged that the water can be heated by steam when there is steam on the building and by a special coal heater during the summer, the same heater being utilized for heating irons for the laundry. Arrangements have also been made for heating water at the school for shower-bath purposes during both summer and winter.

A new six-horse-power boiler has been put into the school building for pumping purposes. This was to replace an Ericsson hot-air pump which had been found inadequate, and to prevent the necessity for using the large boilers during the summer. The saving in the cost for fuel will soon pay for the boiler.

During the winter, complaints were made that the overflow water, which is siphoned from the cesspool, was contaminating a trout brook into which it found its way through a swamp. One or two neighbors also complained that they occasionally

noticed disagreeable odors from the same source. The State Board of Health was consulted, and invited to inspect the premises and advise what should be done to properly care for this overflow sewage, so that there might be no reasonable grounds for complaint for years to come. After careful inspection, a plan was suggested for a series of sewage beds upon which to flow the water which is siphoned off from the cesspool. Beds were accordingly prepared. The plan has been in successful operation for several weeks, and has been inspected and approved by the State Board of Health.

#### ADVANCED CLASS.

At the beginning of the third year an advanced class was organized. It was made up of three who had just graduated from the two years' course and five who had been in school for only one year. This made a class of three young men and five young women of more than average ability. The course offered was one which differed in several particulars from that offered by any other normal school in the State.

The purpose of the course is to prepare teachers for departmental work and for principalships of grammar schools. Much practice is given in the training school, each student teaching a part of each day for two years, and learning how to teach two or three subjects well.

The course includes all of the work of the two years' course and one full year in each of the following lines, — history, literature, mathematics, biology, Latin, and a half year in the following, — ethics, astronomy, advanced physics and drawing.

The work has been so arranged that the extra cost for instruction during the whole of the four years' course will amount to only about four hundred dollars. The value of such a course to the school cannot be easily measured. It elevates the standard of scholarship throughout the school and is a source of inspiration to all.

#### STATISTICS.

The statistics for the regular session are as follows : —

1. Number of students registered Sept. 13, 1900: men, 9; women, 52; total, 61.

2. Number of students registered since Sept. 9, 1897: men, 20; women, 103; total, 123.

3. Average age of entering class when admitted, 18 years and 10 months.

4. Number who have had experience as teachers, 1.

5. Residence of pupils: Barnstable County, — Barnstable, 13; Brewster, 1; Chatham, 1; Dennis, 5; Harwich, 3; Provincetown, 4; Truro, 1; Wellfleet, 1; Yarmouth, 5; total, 34. Bristol County, — Fall River, 15; Somerset, 1; total, 16. Dukes County, — Cottage City, 1. Middlesex County, — Malden, 1. Norfolk County, — Quincy, 3; Norwood, 1; total, 4. Plymouth County, — Norwell, 1; Plymouth, 1; total, 2. Suffolk County, — Boston, 3. Total, 61.

6. Occupations of pupils' parents: carpenters, 5; farmers, 4; grocers, 2; hairdressers, 2; laborers, 2; manufacturers, 2; sea captains, 6; seamen, 2; tailors, 2; architect, baler, blacksmith, commissioner, engineer, fisherman, foreman, furniture dealer, gardener, inspector, lumber dealer, mason, painter, potter, printer, salesman, superintendent of railroad, teamster, 1 each.

#### SUMMER SESSION.

The work of the summer session continues very satisfactory. The total number of those in attendance during the five weeks from July 5 to Aug. 8, 1900, was about the same as that of 1899, but the attendance was much more regular, and nearly all stayed throughout the five weeks. A glance at the table of statistics will show the large amount of preparation and experience which these summer students bring to the work. About one third of the total number had been in attendance on a previous summer and several have attended every summer. Several of the very strongest in scholastic preparation and experience have decided to work for diplomas. Among those now working for diplomas are graduates of normal schools of other States, college graduates, and several who have taken advanced degrees from such colleges as Amherst and Brown.

All who have attended and all who have visited the summer session speak in the highest terms of the kind of work that is done here. All agree that it should be continued along the same general lines. It is coming to be understood that this is not the place for worn-out teachers, but for such teachers

as have enough vitality left at the end of the school year to do some vigorous work in some one subject for five full weeks.

This year there has been inaugurated a movement which may well be encouraged, namely, the granting of a leave of absence for a year to teachers in service who have attended the summer session for two or three summers, and who desire to spend a full year in the normal school. Such a movement will do much toward elevating the professional spirit of the teachers in the State who have not had professional training.

The faculty for the summer session consisted of the following:—

W. A. BALDWIN, B.S., . . . . .	Principal.
EDMUND F. SAWYER, . . . . .	Instructor in music, State Normal School, Hyannis.
E. A. KIRKPATRICK, . . . . .	Instructor in pedagogy, State Normal School, Fitchburg.
ELIZABETH H. SPALDING, . . . . .	Instructor in English, Pratt Institute, Brooklyn, N. Y.
CHARLES P. SINNOTT, B.S., . . . . .	Instructor in geography, State Normal School, Bridgewater.
H. ANNIE KENNEDY, . . . . .	Supervisor of nature work, Quincy.
CHARLES D. MESERVE, A.B., . . . . .	Instructor in mathematics, Newton High School.
FREDERIC H. HOLMES, . . . . .	Instructor in physics, State Normal School, Hyannis.
C. L. G. SCALES, . . . . .	Instructor in history, State Normal School, Oswego, N. Y.
FREDERICK L. BURNHAM, . . . . .	Supervisor of drawing, New Haven, Conn.
HARLAN P. SHAW, . . . . .	Instructor in minerals, geology and chemistry, State Normal School, Bridgewater.
NELLIE B. ALLEN, . . . . .	Instructor in Training School, Fitchburg.
SARAH J. WALTER, . . . . .	Instructor in arithmetic, State Normal School, Willimantic, Conn.

The students were 121 in number. A statement of their experience and preparation is given in the following table:—

Average age (years), . . . . .	26
Average years of experience, . . . . .	4 $\frac{2}{3}$
Number of students graduated from college, . . . . .	12
Number of students graduated from normal schools, . . . . .	20
Number of students graduated from training classes, . . . . .	16
Number of students graduated from high schools, . . . . .	71
Number of students who had attended college, . . . . .	15
Number of students who had attended normal schools, . . . . .	31
Number of students working for diploma, . . . . .	50

GEORGE I. ALDRICH,  
ALICE FREEMAN PALMER,  
*Board of Visitors.*

## STATE NORMAL SCHOOL, LOWELL.

FRANK F. COBURN, PRINCIPAL.

### INSTRUCTORS IN THE NORMAL SCHOOL.

FRANK F. COBURN, . . . . .	Psychology, principles of education, school organization and school government.
HUGH J. MOLLOY, . . . . .	Mathematics.
MABEL HILL, . . . . .	History, civil government and history of education.
LAURA A. KNOTT, . . . . .	English grammar, rhetoric and literature.
ANNA W. DEVEREAUX, . . . . .	Kindergarten theory and practice and child study.
ADELIA M. PARKER, . . . . .	Supervision of practice work.
LYMAN C. NEWELL, . . . . .	Chemistry, physics and geology.
AMY R. WHITTIER, . . . . .	Drawing.
GRACE D. CHESTER, . . . . .	Zoölogy, botany and physiology.
VESTA H. SAWTELLE, . . . . .	Music.
MARY HUSSEY, . . . . .	Reading, vocal training and physical culture.

### INSTRUCTORS IN THE MODEL SCHOOL.

CYRUS A. DURGIN, . . . . .	Principal.
BELLE A. PRESCOTT, . . . . .	Assistant.
CHARLOTTE M. MURKLAND, . . . . .	Assistant.
BELLE F. BATCHELDER, . . . . .	Assistant.
BLANCHE A. CHENEY, . . . . .	Assistant.
AMY S. TUCKE, . . . . .	Assistant.
MARIA W. ROBERTS, . . . . .	Assistant.
CARRIE E. ERSKINE, . . . . .	Assistant.
MARY E. WALSH, . . . . .	Assistant.
MARY I. HOWE, . . . . .	Assistant.
FANNIE M. SPOONER, . . . . .	Assistant.
GRACE B. ALVORD, . . . . .	Assistant.
BERTHA J. CURTIS, . . . . .	Assistant.
ALICE D. SUNBURY, . . . . .	Assistant.
VIOLA G. BURR, . . . . .	Assistant.
FRANCES CLARK, . . . . .	Assistant.
AMY R. WHITTIER, . . . . .	Drawing.
VESTA H. SAWTELLE, . . . . .	Music.
E. BELLE PERHAM, . . . . .	Kindergarten.
CLARE S. REED, . . . . .	Kindergarten.

### IN GENERAL.

The general work of the Lowell Normal School is now well established, the different departments are well equipped, and the teaching force notably efficient.



The second class in the history of the school was graduated June 26, 1900. Thirty-three graduates were awarded diplomas, and certificates for an extra year of graduate work were conferred upon 3 graduates of last year's class.

The number of new students admitted to the school in September was 63. A much larger number, however, were examined for admission. Some of the applicants failed to pass the examinations, and not a few who were successful in the examinations finally decided not to enter the school. Several of the latter who were residents of Lawrence chose to attend the training school in their own city. The normal school was thus deprived of many students who were considered in every way most promising and desirable. It is expected that such a loss to the school will not occur, however, in the future, as arrangements will soon be effected, there is every reason to believe, which will facilitate the attendance at the normal school of the pupil teachers of Lawrence, and thus enable the school to draw upon this neighboring and populous community for its full quota of students.

#### CHANGES IN THE TEACHING FORCE.

During the past year some changes have occurred in the disposition of the teaching force, occasioned by the resignations of Mr. Walter J. Kenyon and Miss Alma E. Hurd. Mr. Kenyon had in charge the departments of drawing and manual training, and also directed the work in geography. During the time he was connected with the school he accomplished much that will endure. He not only organized the departments of drawing and manual training, but also planned their equipment, and before he resigned to accept a more lucrative position in the California State Normal School at San Francisco he had placed them on a solid basis. It was with great regret that his resignation was received, and it has been found no easy task to fill the vacancy his resignation has caused. To teach the drawing Miss Amy R. Whittier, formerly supervisor of the public schools of Bangor, Me., has been appointed; and for the time being Mr. Newell has been assigned the work in geography; but as yet the manual training department is without a director.

The resignation of Miss Hurd caused a vacancy in the department of physical training. This position has not been filled by the appointment of a new teacher, but the work has been assigned to the special teacher of reading and vocal culture, Miss Hussey, who has had special training also for this line of work.

#### MODEL AND PRACTICE SCHOOLS.

In the model and practice schools there have been no changes in the teaching force during the year. The wisdom of having a regular teacher in each room of these schools has been fully demonstrated. There have been no complaints from any source in regard to either the management or the instruction. The parents of the children attending the school are apparently well satisfied with the progress their children make and the manner in which they are taught and governed. The members of the school committee speak in terms of praise of the kind and quality of the instruction, and commend the spirit in which the work of the school is carried on. The encouragement and assistance that the regular and experienced teachers give the normal students, and the deep interest that is evident in their success and development, are indeed worthy the commendation they receive.

#### IMPROVEMENTS.

During the year two rooms in the basement have been equipped with benches and tools necessary for a course in wood working. The benches were designed by Mr. Kenyon, and are models of their kind. They are admirably suited for the kind of work the students are required to perform, and afford accommodations for 25 pupils in a class.

In connection with the gymnasium a system of shower-baths has been installed. Eight showers occupy the centre of a commodious room on the top floor of the building, and twenty cabinets are arranged around the sides of the room. The walls and floors of the showers are of Tennessee marble, and the system of heating the water for the showers is known as the "Gegenstrom hot-water apparatus," by which all danger of scalding while bathing is avoided. All the grading of the

grounds has been completed, and in the rear of the building tennis, basket ball and roque courts have been laid out.

#### LECTURES.

The following persons have delivered lectures or addresses to the students during the year: Hon. Frank A. Hill, Hon. J. O. Lyford, Prof. Patrick Geddes of Glasgow, Scotland, Mrs. Kate Gannett Wells, Mrs. Alice Freeman Palmer, Prof. John M. Tyler, Prof. Wm. F. Ganong, Henry T. Bailey, Henry A. Clapp (course of six lectures), Dr. Jane S. Devereaux (course of five lectures), L. Walter Sargent and Frank A. Parsons. The address to the graduating class was delivered by Edwin P. Seaver, superintendent of schools, Boston.

#### STATISTICS.

The statistics for the school year ending Aug. 31, 1900, are as follows:—

1. Number of students for the year, 142.
2. Number in entering classes, 63,—junior, 49; senior, 3; special, 11.
3. Number of graduates for the year, 33.
4. Total number of graduates, 76.
5. Whole number of students admitted since the opening of the school, 323.
6. Average age of pupils admitted, 17 years and 9 months.
7. Of the entering class, Middlesex County is represented by ten towns and Essex County by four towns; the State of New Hampshire by two towns. Lowell furnishes 19 pupils; Woburn, 6; Lawrence, 4; Andover, 3; Tyngsborough, 3; Haverhill, 2; Littleton, 2; Westford, 2; and Groveland, Waltham, Saugus, Billerica, Wilmington, Methuen, Jaffrey, N. H., and Littleton, N. H., 1 each.
8. Occupations of pupils' fathers: farmers, 7; carpenters, 5; machinists, 5; mechanics, 5; merchants, 2; contractors, 2; car conductor, railroad agent, insurance agent, policeman, dancing master, printer, real estate agent, commercial traveler, overseer, accountant, baker, manufacturer, assessor, 1 each; not reported, 10.

GEORGE H. CONLEY,  
KATE GANNETT WELLS,

*Board of Visitors.*



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SIXTY-FOURTH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

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# REPORT OF THE SECRETARY.

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*To the State Board of Education and the General Court.*

The secretary of the State Board of Education is required by law to report annually to both your honorable bodies such information as he may gather about the condition of the schools of the Commonwealth, as well as such suggestions as he may deem it expedient to make for their welfare. In accordance with this requirement, the sixty-fourth report of the secretary is herewith respectfully submitted.

## SUMMARY OF STATISTICS FOR 1899-1900.

### *I. Number of Public Day Schools.*

1. Number of towns, 320; cities, 33. Total, 353.  
All have made the annual returns required by law.
2. Number of public schools, the unit of comparison being a single school which has one head or principal, whatever the number of subordinate teachers, . . . . 4,508  
Decrease from the preceding year, . . . . 11
3. Number of public schools based on the single class room as the unit of comparison, . . . . 10,440  
Increase over the preceding year, . . . . 319

### *II. Number of Months the Public Schools have been kept.*

1. Aggregate number of months (twenty school days each) all the public schools have been kept during the year, . 98,823 $\frac{1}{20}$   
Increase, . . . . 3,572 $\frac{8}{20}$
2. Average number of months the public schools have been kept during the year, . . . . 9 $\frac{9}{20}$   
Increase, . . . .  $\frac{1}{20}$
3. Aggregate number of months the high schools have been kept during the year, . . . . 2,488  
Increase, . . . .  $\frac{18}{20}$
4. Average number of months the high schools have been kept during the year, . . . . 9 $\frac{10}{20}$   
Increase, . . . .  $\frac{1}{20}$

*III. School Census Data.*

1. Number of persons in the State Sept. 1, 1899, between the ages of seven and fourteen years: males, 160,414; females, 160,565; total, . . . . .	320,979
Increase in the total,* . . . . .	-
2. Number of persons in the State Sept. 1, 1899, between the ages of five and fifteen years: males, 228,544; females, 229,373; total, . . . . .	457,917
Increase in the total, . . . . .	8,818
3. Number of illiterate minors in the State Sept. 1, 1899, over fourteen years of age: males, 2,818; females, 2,675; total, . . . . .	5,493
Increase in the total,* . . . . .	-

*IV. Public School Enrolment and Attendance Data.*

1. Number of pupils between seven and fourteen years of age attending the public schools during the year 1899-1900, .	288,625
Increase over the number between eight and fourteen, . . . . .	42,897
2. Number of different pupils between five and fifteen years of age attending the public schools during the year 1899-1900, . . . . .	420,242
Increase, . . . . .	2,537
3. Number of pupils under five years of age attending the public schools during the year 1899-1900, . . . . .	9,895
Increase, . . . . .	941
4. Number of pupils over fifteen years of age attending the public schools during the year 1899-1900, . . . . .	44,754
Decrease, . . . . .	564
5. Number of pupils of all ages in the public schools during the year 1899-1900, . . . . .	474,891
Increase, . . . . .	2,914
6. Average membership of pupils in all the public schools during the year 1899-1900, . . . . .	399,423
Increase, . . . . .	8,523
7. Average attendance in all the public schools during the year 1899-1900, . . . . .	366,136
Increase, . . . . .	5,819
8. Percentage of attendance based on the average membership, . . . . .	.92

*V. Public School Teachers and their Wages.*

1. Number of men employed as teachers in the public schools during the year, . . . . .	1,196
Decrease, . . . . .	1

\* No data for the preceding year.



2. Number of women employed as teachers in the public schools during the year, . . . . .	12,379
Increase, . . . . .	174
3. Number of different teachers employed in the public schools during the year, . . . . .	13,575
Increase, . . . . .	173
4. Number of teachers required by the public schools, . . . . .	12,290
Increase, . . . . .	331
5. Number of teachers who have attended normal schools, . . . . .	5,831
Increase, . . . . .	427
6. Number of teachers who have graduated from normal schools, . . . . .	4,905
Increase, . . . . .	218
7. Average wages of male teachers per month in the public schools, . . . . .	\$136 54
Increase, . . . . .	\$0 31
8. Average wages of female teachers per month in the public schools, . . . . .	\$52 50
Increase, . . . . .	\$1 09

#### VI. Public High Schools.

1. Number of public high schools, . . . . .	261
Decrease, . . . . .	1
2. Number of teachers in the high schools, . . . . .	1,487
Increase, . . . . .	47
3. Number of pupils in the high schools, . . . . .	40,592
Increase, . . . . .	589
4. Amount of salaries paid to high school principals, . . . . .	\$373,893 31
Increase, . . . . .	\$4,252 01

#### VII. Public Evening Schools.

1. Number of cities and towns having public evening schools, . . . . .	49
Decrease, . . . . .	1
2. Number of evening schools based on the single class room as the unit of comparison, . . . . .	783
Increase, . . . . .	16
3. Number of teachers, . . . . .	1,263
Increase, . . . . .	36
4. Number of different pupils in attendance: males, 20,023; females, 10,585; total, . . . . .	30,608
Decrease in total, . . . . .	5,796
5. Average attendance, . . . . .	16,193
Decrease, . . . . .	69
6. Expended upon evening schools, . . . . .	\$208,277 25
Increase, . . . . .	\$539 10

*VIII. Public Kindergartens.*

1. Number of towns and cities having public kindergartens, .	36
Increase, . . . . .	1
2. Number of public kindergartens, . . . . .	220
Increase, . . . . .	10
3. Number of teachers, . . . . .	423
Increase, . . . . .	27
4. Number of pupils, . . . . .	14,257
Increase, . . . . .	249

*IX. Cost of the Public Schools for Support.*

A. Total expenditure for the <i>support</i> of the public schools, \$10,677,485 74	
Increase, . . . . .	\$390,957 73
This expenditure is distributed among the following classes indicated in the statutory definition of support:—	
1. Teachers' wages, . . . . .	\$7,891,458 80
Increase,* . . . . .	—
2. Conveyance of pupils, . . . . .	\$141,753 84
Increase, . . . . .	\$14,344 62
3. Fuel and care of school premises, . . . . .	\$1,287,540 80
Increase,* . . . . .	—
4. School committees, clerks, truant officers, etc., . . . . .	\$140,823 31
Increase, . . . . .	\$13,140 25
5. Superintendents of schools, . . . . .	\$281,887 51
Increase, . . . . .	\$71,005 74
6. Text-books and supplies, . . . . .	\$616,975 21
Increase, . . . . .	\$31,598 94
7. School sundries, . . . . .	\$317,046 27
Decrease, . . . . .	\$36,801 07
B. Amount included in the total expenditure for <i>support</i> as given under IX., A, but derived from other sources than local taxation or its equivalent, such as aid from the State, income from local funds, voluntary contributions, etc., . . . . .	\$267,505 58
Decrease, . . . . .	\$49,500 96
C. Amount raised by <i>local taxation</i> and expended for the <i>support</i> of public schools, being the total expenditure for such support as given under IX., A, diminished by contributions for such support from other sources than local taxation as given under IX., B, . . . . .	\$10,409,980 16
Increase, . . . . .	\$388,476 29

\* No data for the preceding year.

### X. *Cost of the Public Schools for Buildings.*

A. Total expenditure for <i>buildings</i> for the public schools,	\$3,148,757 67
Decrease,	\$454,552 53
This expenditure is distributed as follows:—	
1. New schoolhouses,	\$2,200,193 16
Decrease,	\$542,423 95
2. Alterations and permanent improve-	
ments,	\$614,003 80
Increase,	\$322,595 29
3. Ordinary repairs,	\$334,560 71
Decrease,	\$234,723 87
B. Amount included in the total expenditure for <i>buildings</i> for the public schools as given under X., A, but derived from other sources than local taxation or its equivalent,	\$8,342 05
Increase,*	—
C. Amount raised by <i>local taxation</i> and expended for <i>buildings</i> , being the total expenditure for buildings as given under X., A, diminished by contributions for buildings from other sources than local taxation as given under X., B,	\$3,140,415 62
Decrease,*	—

### XI. *Total Cost of the Public Schools for Support and Buildings.*

1. Total expenditure for <i>support</i> and <i>buildings</i> for the public schools, that is, for all public school purposes,	\$13,826,243 41
Decrease,	\$63,594 80
2. Amount included in the total expenditure for <i>support</i> and <i>buildings</i> as given under IX., A, and X., A, but derived from other sources than local taxation or its equivalent,	\$275,847 63
Increase,	\$10,823 49
3. Amount raised by <i>local taxation</i> and expended for <i>support</i> and <i>buildings</i> , being the total expenditure for these purposes as given under IX., A, and X., A, diminished by contributions thereto from other sources than local taxation or its equivalent, as given under IX., B, and X., B,	\$13,550,395 78
Decrease,	\$74,418 29

### XII. *Cost of the Public Schools per Child.*

1. Average <i>taxation</i> cost of the public schools for <i>support</i> (IX., C) for each child in the State between the ages of five and fifteen years (III., 2),	\$22 73
Increase,	\$0 42

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\* No data for the preceding year.

2. Average <i>taxation</i> cost of the public schools for <i>support</i> (IX., C) for each child in the average membership of the public schools (IV., 6), . . . . .	\$26 06
Increase, . . . . .	\$0 43
3. Average <i>taxation</i> cost of the public schools for <i>support</i> and <i>buildings</i> , that is, for all school purposes (XI., 3), for each child in the State between the ages of five and fifteen years (III., 2), . . . . .	\$29 59
Decrease, . . . . .	\$0 74
4. Average <i>taxation</i> cost of the public schools for <i>support</i> and <i>buildings</i> , that is, for all school purposes (XI., 3), for each child in the average membership of the public schools (IV., 6), . . . . .	\$33 92
Decrease, . . . . .	\$0 93
5. Average expenditure on account of the public schools for <i>support</i> and <i>buildings</i> , including <i>voluntary contributions</i> as well as money raised by <i>taxation</i> (XI., 1), for each child in the State between five and fifteen years of age (III., 2), . . . . .	\$30 19
Decrease, . . . . .	\$0 73
6. Average expenditure on account of public schools for <i>support</i> and <i>buildings</i> , including <i>voluntary contributions</i> as well as money raised by <i>taxation</i> (XI., 1), for each child in the average membership of the public schools (IV., 6), . . . . .	\$34 62
Decrease, . . . . .	\$0 91

### XIII. *Percentage of State Valuation expended for Public School Purposes.*

1. Percentage of the total State valuation (May 1, 1899) raised by *local taxation* and expended for the *support* of the public schools, . . . . . .003 $\frac{62}{100}$ , or \$3.62 per \$1,000  
This percentage is the same as last year.
2. Percentage of the total State valuation (May 1, 1899) raised by *local taxation* and expended on the public schools for *support* and *buildings* (XI., 3), .004 $\frac{71}{100}$ , or \$4.71 per \$1,000  
Decrease, . . . . . .000 $\frac{21}{100}$ , or \$0.21 per \$1,000

### XIV. *Academies and Private Schools.*

1. Number of incorporated academies, . . . . . 53  
Decrease, . . . . . 3
2. Whole number of pupils in the academies for the year, . . . . . 6,090  
Increase, . . . . . 567
3. Amount of tuition paid in the academies during the year, . . \$446,609 32  
Increase, . . . . . \$12,732 78

4. Number of private schools returned, . . . . .	366
Decrease, . . . . .	2
5. Whole number of pupils in the private schools during the year,* . . . . .	73,205
Increase, . . . . .	7,268
6. Amount of tuition paid in private schools (much of it esti- mated),* . . . . .	\$530,935 87
Decrease, . . . . .	\$152,541 78

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\* An increase so marked in the number of pupils as given under 5, and a decrease so marked in the amount of tuition as given under 6, seriously conflict with each other. The items are given, however, precisely as returned.

## ANALYSIS OF THE STATISTICAL RETURNS FOR 1899-1900.

### THE ANNUAL SCHOOL RETURNS.

*Recommendation of a Uniform School Year.* — In the sixty-third report of the secretary attention was called to the following points : —

1. Existing diversities in the closing of the fiscal years of the several towns and cities, — diversities that cannot be removed under present conditions.

2. Existing diversities in the closing of the school years of the several towns and cities, — diversities entirely feasible to remove.

3. A statement of the reasons why the school year for the entire State should be what is commonly known as the natural school year that extends from summer vacation to summer vacation or, more exactly, from that date in the late summer or early fall when the schools open or the services of teachers begin to the corresponding date the next year.

Accordingly it was recommended : —

1. That every school committee should make its attendance returns — all its returns except its fiscal ones — for the natural school year as defined above.

2. That school registers should be opened for all schools in the fall and kept for the natural school year.

It was pointed out that the school attendance returns for a uniform school year would necessarily lag behind the school money returns for the non-uniform fiscal years. There is no present remedy for this, — perhaps no possible one. There is little likelihood that the numerous fiscal years of the several towns and cities will ever be made uniform ; but, even if they should be brought together, there is less likelihood of bringing together a uniform fiscal year and a uniform school year, since the best time for closing the latter is probably the worst time for closing the former. While the smaller towns have usually reported on the first of May for school years ending at or near the dates when their several town meetings are held in the spring, it has been inexpedient, if not impracticable, for

larger places to report data so recent and fresh. The only feasible way to secure the desired uniformity is to make the school year cover a period for which all can be sure to report, namely, the year ending the preceding summer. It is in the interests of convenience, completeness and accuracy, as well as of uniformity, that all school committees shall adjust their attendance reports to such a period.

*Blank for the School Returns.* — The blank forms of inquiry required by law to be sent to the several school committees are sent out April 1. Answers are due at the secretary's office May 1. The returns on which the present report is based were received May 1, 1900. It takes several months to tabulate these returns properly, the office having but one clerk available for the purpose. When tabulated, the returns are printed and constitute the appendix of the annual report of the Board. This appendix is usually ready in November. It is the basis for a large part of the report of the secretary of the Board. As the law requires that this report shall be presented to the Legislature on the third Wednesday in January, it is obvious that a large amount of work has to be crowded into a brief space of time. Ordinarily the statistical information about the schools, the recommendations of the Board and its secretary, and other matters important for the Legislature to know early in the session, are presented at this time, the complete report following in March or April. The school return blank sent out April 1, 1900, was accompanied by the following circular, which is reproduced partly to show the effort making to secure more systematic and accurate returns and partly to keep school committees reminded of certain duties that still need attention: —

STATE HOUSE, BOSTON, April 1, 1900.

*To School Committees and Superintendents of Schools.*

The system of annual school returns for Massachusetts was devised half a century ago, when school conditions were much simpler than to-day, though even then there were a few conditions so complex or unique as to make it somewhat difficult to frame a scheme of inquiries to cover them all satisfactorily. When the system was devised, free text-books, for example, had not been authorized, supervision by

superintendents of schools was not practised, children were not conveyed to school at public expense, and many classes of expenditures now deemed necessary were scarcely known. On the other hand, the board of teachers figured somewhat conspicuously in their pay, public schools were often extended by private subscription, a sharp distinction existed between winter schools and summer schools, and so on. With old conditions disappearing and new ones arising, but with certain inquiries adapted to the former and not to the latter remaining unchanged by operation of law, the work of framing satisfactory inquiries in the blank has been somewhat embarrassed. Moreover, with three hundred and fifty-three towns and cities asserting their individuality and freedom in adopting school and fiscal years and in keeping school and fiscal accounts to meet their several ideas of convenience, the task of framing such inquiries has not been simplified. As a result, however, of recent changes in the school laws, it has become feasible to adapt the inquiries of the blank more fully to present conditions.

Attention is called to the following points in connection with the blank for the school returns to be filled out on or before April 30, 1900: —

1. *The New School Census.* — The first school census under the new law was taken in the month of September, 1899, for September 1. The present blank calls for data in accordance with that census.

2. *The New School Register.* — The new school register was sent out for the first time in season for the opening of the schools in September (or at the close of the summer vacation), 1899. Attendance data for the natural school year (from September, 1899, to September, 1900), *in accordance with the rules of the new register*, will not be due until the next school returns are made to the Board of Education on or before April 30, 1901. So far, however, as it may be feasible for a town (or city) to report in the present returns attendance data for the natural school year that extended from September, 1898, to September, 1899, it is desired that it shall do so. In changing from an existing school year other than the natural to the natural school year, a certain duplication of returns is unavoidable. The fiscal returns for a town or city are to be made out for the latest fiscal year. While attendance returns for a uniform school year are perfectly feasible, fiscal returns for a uniform fiscal year are, under present conditions, impossible. (For a full statement of the diversities existing in school and fiscal years heretofore, see pages 80–82 of the sixty-second report of the State Board of Education.)



3. *Support of the Public Schools, — Meaning of the Expression.* — The popular definition of “support” in the case of the public schools has been for many years more comprehensive than the statutory definition.

The Legislature of 1900 has so amended the certificate in the blank for the annual returns that the word “support” now includes all sums now raised by taxation and expended on the public schools, excepting the sums raised and expended for school buildings. Heretofore, such important items as conveyance of children, supervision, free textbooks and school sundries have not been included by law under the expression “support” as defined in the certificate.

Expenditures for school buildings, whether for new constructions, permanent improvements or ordinary repairs, are separated in the blank from expenditures for the “support of the public schools” because new constructions generally, permanent improvements frequently, and ordinary repairs occasionally, especially if somewhat extensive, are met, not immediately out of the annual tax levy on the principle of “pay as you go,” as in the case of expenditures for support, but out of bonds, notes or loans whose payment is variously distributed through subsequent years. It is better, on the whole, that all the expenditures for school buildings should follow the classification of the larger portion of them, in which case they must all be excluded from the current expenses of the public schools. Expenditures for the *support of public schools*, therefore, may fairly be regarded as *expenditures for all school purposes exclusive of expenditures for school buildings*. Such support of the public schools is provided mainly by local taxation, but to some extent by allowances from the State and contributions from private sources.

4. *Method of finding the Local Taxation Burden of the Public Schools as distinguished from their Total Cost.* — The present blank requires towns and cities to report under the head of support the following: —

(a) The total cost of the public schools, day and evening, as determined by the actual expenditure of money for them during the fiscal year, buildings excluded, regardless of the sources from which the money comes, whether from the annual tax levy or loans or private funds or the State.

(b) The total voluntary contributions for public school purposes, buildings excluded, from the State, from private funds, in short, from all sources whatsoever outside of public taxation.

(c) The difference between (a) and (b). The difference will be the total local taxation burden for the support of public schools and

is, therefore, the amount to be subscribed and sworn to in the certificate of the blank.

If there are conditions in connection with the support of schools that the inquiries do not fit, the spirit of the inquiries will nevertheless serve as a guide in dealing with such conditions. The inquiries should be so answered that the local taxation burden of the public schools — the full and genuine expenditure actually made by the town during the fiscal year for the public schools *without aid from the State or from voluntary contributions or from any sources other than local taxation or the equivalent thereof as defined in the blank* — may be ultimately given with substantial accuracy. This local taxation burden, the credit or discredit of which belongs exclusively to the town, is the amount that belongs in the certificate; it is the amount to be subscribed and sworn to; and one of its important uses is that of a basis for the distribution of the income of the school fund.

5. *Registers for Private Schools.* — Attention is called to the importance of providing private schools with school registers in season for their opening in September (or after the summer vacation), in 1901. (See the sixty-third report of the State Board of Education, pages 84–86, for a discussion of the subject of registers for private schools; also pages 90–96 for a consideration of the relations of school committees and of the State to private schools.)

6. *Conditions favoring Improved School Returns.* — It will be noted that conditions have been maturing for a more uniform and accurate statement of public and private school facts because —

- (a) Of the law of 1898.
- (b) Of the new school census.
- (c) Of the new school registers.
- (d) Of the plan to provide private schools with registers.
- (e) Of the new statutory definition of “support” when used in connection with the public schools, as it appears in the new certificate.

7. *Co-operation welcomed.* — The co-operation of school committees, superintendents of schools, private school authorities, and all persons who have to do with the public and private schools of the Commonwealth is earnestly solicited, that the State Board of Education may improve the accuracy and value of the information it seeks to give about the educational conditions of the Commonwealth.

Suggestions of further improvement in the important work of gathering trustworthy information about the schools will be gratefully received and duly considered.

The promptness of the great majority of the towns in sending in their returns on or before April 30, as required by law, is appreciated. The work of the office would be much facilitated if returns could be received from *all* the towns and cities on or before the prescribed date.

FRANK A. HILL,  
*Secretary of the Board.*

*The Several School and Fiscal Years covered by the Present Report.* — It will be noted from the foregoing circular that the change to the uniform school year recommended cannot be completed until next year. For the present report the towns and cities have made returns for school years ending as in the following statement : —

CLOSE OF SCHOOL YEAR.	Number of towns.	CLOSE OF SCHOOL YEAR.	Number of towns.
June, 1899, . . . .	171	January, 1900, . . . .	18
August, 1899, . . . .	3	February, 1900, . . . .	27
September, 1899, . . . .	15	March, 1900, . . . .	67
November, 1899, . . . .	1	April, 1900, . . . .	9
December, 1899, . . . .	35	May, 1900, . . . .	1

From six towns the close of the school year is not reported. The population of the 189 towns and cities that have already practically adopted the natural school year is about 1,800,000, or two thirds of the total for the State. If an exact date is to be fixed for the beginning of the school year, let it be September 1. This would answer for all except a few rural towns whose schools open in August, and whose natural school year would therefore begin a few days earlier.

School attendance returns when uniformly made out for the natural school year must generally fall behind the school fiscal returns. This has always been the case, however, for a large part of the State. The measure of this lagging behind, starting from September 1, will vary for most cases from three to

six months, as may be seen from the following statement relative to the close of fiscal years : —

CLOSE OF FISCAL YEAR.	Number of towns.	CLOSE OF FISCAL YEAR.	Number of towns.
June, 1899, . . .	7	January, 1900, . . .	42
July, 1899, . . .	1	February, 1900, . . .	82
September, 1899, . . .	3	March, 1900, . . .	107
November, 1899, . . .	8	April, 1900, . . .	12
December, 1899, . . .	84	No reports, . . .	7

The cities usually end their fiscal years at or near the close of the calendar year ; the towns, in the spring, at or near the time of the annual town meeting.

*Secretary of the School Committee.*—The two offices of chairman and of secretary should not be held by one and the same person. When the law requires that certain certificates shall be subscribed and sworn to by the chairman and the secretary, it contemplates signatures by two persons rather than by one. The office declines to accept certificates that are not thus attested. The secretary may be any member of the school committee except its chairman, or he may be the superintendent of schools or any other person the committee may appoint. He may be paid for his services as secretary, even though he may not be entitled to pay as a member of the school committee. The law requires the committee to appoint a secretary, and specifies the following duties for him to perform : —

1. To keep a permanent record book, in which the votes, orders and proceedings of the school committee shall be recorded. This duty is sometimes neglected, particularly when a school committee parcels the schools out among its members, formally or tacitly, in a way that permits each member to have substantially the entire control of “his own” schools or field. What should be a matter of official record may in this way easily become a matter of personal memory only. Indeed, the door may thus be opened to methods of doubtful legality.

2. To receive from the State Board of Education school return, census and register blanks, as well as its annual reports, and to notify the Board in certain cases of failure to receive them.

3. In conjunction with the chairman of the school committee, to fill out, take oath to and transmit to the secretary of the State Board of Education the statutory certificate of expenditures on which the distribution of the income of the school fund is based.

4. And, if required by the State Board of Education, to sign and take oath to, in conjunction with the chairman of the school committee, the certificates that form the basis of State payments to certain towns on account of high school tuition, additions to the salaries of teachers, and the salaries of district superintendents.

*The Secretary's Relation to Local School History.* — Aside from the duties explicitly stated in the statutes, there are other duties well defined by custom and prudence that merit the faithful attention of the secretary. Is he, for example, accurate and orderly in keeping his records? Are his names precisely right, his dates absolutely complete and true? Do his records mean for others just what they mean to himself? Is he quite sure that others can get over the gaps therein which he readily bridges himself? Is he a loyal custodian of the records that have preceded his own? Does he aim to keep the succession unbroken from the start in the interests of local history and local pride? Does he foresee how a hundred years hence the historian of the town will bless him for the fulness and lucidity of his story or curse him for its meagreness, its untrustworthiness or its non-existence? Is he aware how Massachusetts will never cease to be grateful to Governor Bradford for writing out on paper that defies the centuries, with ink that shows no sign of paling, and after a fashion as notable for its vigor and effectiveness as for its quaintness, the story of the "Mayflower" and the Pilgrim fathers? It is refreshing to note that not a few school committees are awake to their duty in maintaining the integrity of their school annals. The person closest to this duty is, of course, the secretary of the school committee. If the secre-

tary has no permanent office where records and documents may accumulate, let some arrangement be made with the town clerk or with the public library for such care.

The superintendent of schools is not unfrequently the secretary of the school committee. Whether he is or not, his report is usually a prominent part of the general report by the school committee. By a natural implication, one of his duties is to contribute his share towards saving local school history from oblivion. Cambridge is indebted to Superintendent Cogswell for the pains he has taken to make his reports as valuable for historical purposes as for present information. In the report of the Fitchburg school committee for 1900 Superintendent Edgerly gives a valuable résumé of Fitchburg school history for his twenty-five years of service there.

The town of Lee affords an example of laudable public spirit in the same direction. In its latest report (1899) the school committee says : —

Diligent search has been made for several years for the purpose of collecting and preserving any records and material relating to the educational history of the town, with the result that the records and papers of four districts, and the treasurer's accounts, and a large number of papers of the Hopland School District have been secured. Copies of several of the early committee reports, which were wanting in our records, have been obtained from the originals in the State library, and recorded. The town's set of reports of the State Board of Education, which lacked a number of volumes, has been made complete, all supplements included.

Then follows a list of the school records, documents and papers that have been saved or recovered and are now in the town's archives, with a valuable historical sketch of the schools of the town that no student of the development of the school district system in Massachusetts can afford to miss. The following votes of the Hopland School District, Jan. 2, 1791, for example, illumine not only a primitive custom of the schools but also the democratic way in which one school district, at least, enforced its mandates : —

*Voted*, That the Scholars who attend the School shall be turned out provided the Parents or Masters Do not provide their Quota of wood By the 20<sup>th</sup> Day of Jan<sup>y</sup> Current untill the wood is provided.

*Voted*, That for each Schollar who attends School there shall Be one Quarter of a Cord of Good wood provided and Cut ready for the fire.

*Voted*, That Enoch Garfield, Cap<sup>t</sup> Starnes and Edmond Hinckley be a Committee to turn those Scholars out of School who shall not have wood provided for them as above mentioned.

Very few towns, it is to be feared, have complete sets of the State educational reports and unbroken records of their own school doings. And yet, had they respected the intent of the State, they would now be in possession of the former; and had all their school officials risen to the full measure of their duty, there would now be no break in the latter. It is important that the omissions of the past shall be made good so far as practicable, and that there shall be no further laxity in the future.

*The Annual Report of the State Board of Education.*—The State Board of Education was organized in 1837, and its first report is for that year. Sixty-four annual reports have been prepared in all,—twelve by Horace Mann, seven by Barnas Sears, five by George S. Boutwell, sixteen by Joseph White, seventeen by John W. Dickinson and seven by the present secretary. The authorized edition is at present 5,000 copies. Between 3,000 and 4,000 are disposed of by law. They go to the departments, to members of the Legislature, to the towns, public libraries and school committees of the Commonwealth, and to various institutions and officials specifically designated. The rest are at the disposal of the office, and are sent to the educational departments of other States and foreign countries, to the teaching departments of colleges, to some of the leading libraries of the world, to educational journals, and to individuals who, for various reasons, ask for them. Some are placed in the State library, to meet by exchange or otherwise such pressing library needs as may develop in the future. In this way the edition is speedily exhausted. The office has on hand no reports whatever back of the sixty-third. By the time the sixty-fourth is issued the sixty-third will be exhausted.

*The Subject Matter of the Annual Report.*—The subject matter of the annual report is largely determined by law. The doings of the Board must be reported, — a duty that at present

involves eleven special reports, one by the Board itself and ten by the several boards of visitors of the normal schools. The great burden of the report falls upon the secretary. He must present a printed abstract of the annual returns from three hundred and fifty-three towns and cities, — a serious matter to start with, and made all the more so because of that individualism that has marked the development of Massachusetts towns, and makes it hard to bring their affairs into anything like a uniform view. Mere figures are inert and uninteresting things. If not interpreted they fail of their purpose. But when their significance is brought out, when educational trends are seen beneath them, when the credit or the shame of them is impressed upon the public conscience, then they become sharp, stimulating and effective agencies for good. Not the least important of the secretary's duties is to make this interpretation. The statutes also practically put upon the secretary the duty of considering the ever-expanding educational field, — its condition and its needs. By no possibility can he cover it all, and so he annually selects from the field a few topics whose discussion seems to him opportune. Further, the statutes require the agents of the Board to visit the towns and cities to inquire into the condition of their schools, to confer with their school authorities, to lecture upon educational themes, and, in general, to receive and give information in the same manner as the secretary might do, were he present. Accordingly, the reports of the agents have always constituted a portion — and a very valuable portion — of the general report. Then the law requires that the various institutions aided by tuition or other money payments from the State treasury shall report to the Board, and the same duty is imposed upon the county truant schools. Hardly a year goes by but that the Board is directed by the Legislature to make some special research or report for the good of the schools. All the while the function of the report is to be kept in mind. It is not a work to be read in course, but to be used for reference rather, — to be examined by school committees, to be appealed to in the town meeting, to be consulted by the educational writer. Nor should it be overlooked that it has a service to render as a history of the schools, or, more strictly speaking, as a trustworthy repos-



itory of school facts upon which such a history must largely be based.

It is not enough, therefore, that the report shall make school facts intelligible to the present, when people out of their own knowledge can make good what it lacks, but it should make them intelligible to the future, when people can no longer make good such deficiencies. Occasionally the subject matter and the form of presentation are controlled by a purpose to give satisfactory information to other States and countries. As Massachusetts welcomes the best school experience of others, she should be willing, if her own school experience is of interest or value to others, as it seems sometimes to be, to put it into satisfactory shape for their use. And so the report grows and takes character. The problem is not to find material for it; it is rather to reject material that invites publication; for, after all, there are limitations which a State report ought to respect.

*Importance of publishing Portions of the Report independently.* — There is a statute that forbids the printing of more State reports than the number authorized by law. This prohibition is held to extend to the printing of portions of such reports for separate use. On the other hand, in addition to the statute requiring the Board of Education to issue an annual report, there is a statute requiring the secretary "to diffuse as widely as possible throughout the Commonwealth information," etc. In preparing the annual report in accordance with the one statute, the secretary occasionally avails himself of the information he diffuses under the other statute, and *vice versa*. This involves a certain duplication. And so the question frequently recurs whether it is legitimate to use matter that has been prepared for the one purpose for the other purpose as well, the auditor not being altogether clear that it is so, and the secretary not altogether clear that it is not so.

The secretary's authority to use in the report any circulars or pamphlets he may issue for general information or to reproduce from the report such matters as merit a wider diffusion than the report can possibly give should be so defined as to remove the doubt that exists. No addition to the office appropriation is needed for the purpose, the amount of duplication

desired being relatively small. It is common business prudence, to say nothing of the convenience of it, if a person wants to look up a particular theme, as the consolidation of schools, or the status of supervision, or a course of study, or the history of a school movement, to send him precisely what he wants in the shape of a compact presentation, rather than the general report, which he will discard as soon as it yields up to him what he is after. The saving in mere expressage or postage on the report, to say nothing of saving the report itself for a more extended use, goes far towards paying the limited duplication desired. The edition of the report is relatively small, and its copies should not be sacrificed to minor wants that can be more economically and effectively met if the secretary has a little more freedom in "widely diffusing" that information which the statute contemplates.

*Copies of Old Reports wanted.* — If persons have copies of old reports, particularly the earlier ones, which they are willing to present to the office or to the State library, the office or the library will gladly receive them and pay the necessary express charges thereon. Such reports are used in completing sets for libraries and educational institutions, and so are placed where they can render service.

*The State Board of Education and the Paris Exposition.* — The State Board of Education contributed to the Paris Exposition an exhibit of its normal schools, for which it was awarded a gold medal; also a complete set, sixty-three volumes, of its annual reports, and a set of monographs on various educational themes, for each of which it was awarded a *grand prix*.

## NUMBER OF PUBLIC DAY SCHOOLS.

*I. Table showing the number of public schools in the State, as determined (1) by taking the single school with one principal, whatever the number of other teachers, as the unit of comparison, and (2) by taking the single class room as the unit of comparison, from 1895 to 1900, inclusive.*

YEARS.	Number of schools with one head or principal.	Increase.	Number of schools or class rooms.	Increase.	Teachers required for the public schools.	Increase.
1895, .	4,590	—	8,874	—	10,409	336
1896, .	4,539	51*	9,153	279	10,682	273
1897, .	4,501	38*	9,557	404	11,301	619
1898, .	4,616	115	9,863	306	11,678	377
1899, .	4,519	96*	10,121	258	11,959	281
1900, .	4,508	11*	10,440	319	12,290	331

\* Decrease.

*Comments on Table I.*—There are two ways of counting the public schools of the State. The popular conception of a single school may be taken as the basis of the count, namely, a school that has but one head or principal, is known by some particular name, and stands as a unit in the public thought, without reference to the size of the school or the number of teachers employed in it. Upon this basis the number of public schools has decreased from 4,519 to 4,508 since the last report. The count on this basis is of little value for the general purposes of comparison, since a school of a thousand pupils is of no more consequence in the count than a school of ten. It by no means follows that a community of ten schools has more pupils or larger school facilities than a community of one, for the ten schools in one case may be thinly attended, poorly provided for and languishing, while the single school in the other may be large, well equipped and flourishing.

A better but not wholly satisfactory basis for counting the schools is found in taking the single class room for the unit of

comparison. Upon this basis the number of public schools has increased since the last report from 10,121 to 10,440, the gain being 319. This increase is reasonably near the reported increase in the number of teachers required for the public schools, namely, 331. The number of teachers required by all the public schools is 12,290, or 1,850 more than the number of public schools. This excess of 1,850 is made up of assistant teachers serving in the same rooms with teachers in charge, and the various classes of special teachers that do not have charge of class rooms themselves, but give lessons in the class rooms of others, such as teachers of drawing, music, gymnastics, and so on.

Previous to 1895 only one count of the public schools was made. Notwithstanding the effort to have that count based on the single class room as a unit, many school committees returned a count based on the popular notion of a school as a unit. Thus the number of schools reported for the State could not but be unsatisfactory. As a matter of fact, it was 7,833 for 1894, when the number of separate schools under one principal the next year was 4,590, or 3,243 less, while the number of schools, the single class room being the unit, was 8,874, or 1,041 more. By calling for both counts the committees are relieved from a certain embarrassment and the results are more likely to be trustworthy.

The table reflects unquestionably the process of consolidating schools which is steadily going on, there being 82 less schools reported for 1900 than for 1895. The number of schools reported for 1898, 4,616, probably contains some error. The number of schools, reported a year later, 4,628, was subsequently ascertained to have been 4,519, as correctly given in the present table.

#### LENGTH OF THE PUBLIC SCHOOLS.

*Average Length of the Public Schools in Months.* — To find how many months the public schools have kept, the aggregate number of months all these schools have kept is divided by the number of such schools. The following table gives the averages for ten years and the data on which they are based : —

*II. Table showing the aggregate number of months and the average number of months all the public schools have been kept for the past ten years.*

YEARS.	Aggregate number of months.	Increase in months.	Average number of months.	Increase in days.
1890-1891, . . .	65,420	—	9 mos.	—
1891-1892, . . .	67,091	1,671	9 mos., 2 days.	2
1892-1893, . . .	68,961	1,870	9 mos., 3 days.	1
1893-1894, . . .	72,690	3,729	9 mos., 6 days.	3
1894-1895, . . .	82,818	10,128	9 mos., 6 days.	—
1895-1896, . . .	85,394	2,576	9 mos., 6 days.	—
1896-1897, . . .	89,226	3,832	9 mos., 6 days.	—
1897-1898, . . .	92,020	3,794	9 mos., 6 days.	—
1898-1899, . . .	95,251	3,231	9 mos., 8 days.	2
1899-1900, . . .	98,823	3,572	9 mos., 9 days.	1

In 1895, for the first time, a substantially correct count of the number of public schools was secured on the basis of the single class room as the unit of comparison. This accounts for the sharp upward leap in the aggregate from 1894 to 1895, after which the annual increase resumes its steadier pace. The average length of schooling has been slowly gaining, partly because of the voluntary action of the towns and partly because of State requirement. In 1898, for instance, the minimum length of schooling was raised from six months to eight months for towns under 4,000 inhabitants,—a change reflected in the rising average for the past two years.

*Towns whose Schooling falls short of the Legal Requirement.* — At the time the minimum length of schooling was raised from six months to eight (section 1, chapter 496, Acts of 1898, approved June 2, 1898), there were 306 towns and cities whose schools were kept from eight to ten months, and 47 towns only whose schools were kept open less than eight months. Of these 47 towns, 33 have increased their length

of schooling as required, leaving 14 that have not done so. Belchertown, West Newbury and Warwick, whose schools the preceding year were kept open eight months or more, have fallen slightly below the requirement. The net result is that 336 towns and cities have complied with the law, while 17 towns apparently have not succeeded in doing so. These 17 towns with their deficiencies are as follows : —

TOWNS.	Length of schooling in months and days.	TOWNS.	Length of schooling in months and days.
Berkshire County :		Hampden County :	
Otis, . . . .	7-5	Blandford, . .	7-2
Peru, . . . .	7-15	Hampshire County :	
Savoy, . . . .	6-13	Belchertown, . .	7-16
Essex County :		Cummington, . .	7-10
West Newbury, . .	7-18	Huntington, . .	7-14
Franklin County :		Middlefield, . .	7-17
Leyden, . . . .	7-17	Pelham, . . . .	7-8
Rowe, . . . .	6-8	Worcester County :	
Warwick, . . . .	6-13	Princeton, . . .	7-19
Wendell, . . . .	7-18	Sterling, . . . .	7-17
		Westminster, . .	7-6

It will be noted that eight of the foregoing towns fall short only from one to five days each. Then there are a few towns, as appears from the following list, whose average length of schooling has been held up to the mark, but in which one or more schools have fallen below : —

TOWNS.	Schools not kept the full time.	Total number of schools.	TOWNS.	Schools not kept the full time.	Total number of schools.
Alford, . . .	1	2	Tyringham, . .	1	3
Chester, . . .	3	8	Westford, . . .	4	16

Inasmuch as a town's share in the income of the school fund is conditioned in part on its compliance with the law requiring

thirty-two weeks of schooling (section 5, chapter 177, Acts of 1891, and section 1, chapter 496, Acts of 1898), it is important (1) that no errors should occur in computing and reporting the average length of schooling, and (2) that any circumstances that may have compelled a shortage in the length of schooling contrary to the intention of the towns should be made known. If schools are consolidated so that certain schools are discontinued, while their pupils are otherwise fully provided for, school committees sometimes report the discontinued schools as not having been kept the legal time. Such cases should not be reported. No pupil has been deprived of his full eight months' schooling, so that there has been no failure to meet the spirit of the law. Again, sickness or exceptional winter conditions or other compelling reasons may cause the closing of single schools. This may or may not sink the average length of the schooling below the legal limit; it has not done so in the second of the foregoing lists, but probably has done so in some cases of the first list.

If towns plan for precisely thirty-two weeks' schooling, they expose themselves to a pretty strong likelihood of running short of that length. Would it not be wiser for them to add a margin of a week or two for contingencies? A generous margin thus added would still leave them several weeks behind the State average. It is one thing for towns negligently or wilfully to violate the thirty-two weeks' law; it is another thing for them to have their plans made in good faith for full observance frustrated by conditions beyond their foresight or control. The spirit of the school fund legislation is presumably to put its penalties upon failures of the former sort rather than upon failures of the latter. Letters have been addressed to the school committees of the foregoing towns, to ascertain more fully the circumstances of the failure in each.

*Reduction of Schooling in Certain Towns.* — The Legislature of 1900 authorized a reduction in the length of schooling from thirty-two weeks to twenty-eight in towns whose valuation is under \$200,000, provided the State Board of Education approves such reduction. The reason assigned for this legislation was that the hill towns in western Massachusetts, usually towns of small population and humble valuation, not unfrequently found it impracticable to keep some of their schools

open during the winter months. There not being time enough in the remainder of the year to fill out the thirty-two weeks required, they felt that their share in the income of the school fund would thus be endangered. The law applies at present to the following towns:—

TOWNS.	Number of schools.	Valuation.	Length of schooling the past year.
Barnstable County:			
Mashpee, . . . . .	3	\$182,020	8
Berkshire County:			
Alford, . . . . .	2	168,093	8-15
Florida, . . . . .	5	154,548	8-4
Mount Washington, . . . . .	2	90,843	8
New Ashford, . . . . .	1	57,165	8
Peru, . . . . .	3	118,924	7-15
Savoy, . . . . .	7	157,765	6-13
Windsor, . . . . .	7	192,238	8
Dukes County:			
Gay Head, . . . . .	1	26,217	9
Franklin County:			
Hawley, . . . . .	6	146,504	8
Heath, . . . . .	7	156,544	8
Leyden, . . . . .	5	195,254	7-17
Monroe, . . . . .	4	138,384	8-5
Rowe, . . . . .	6	172,760	6-8
Shutesbury, . . . . .	4	168,260	8
Hampden County:			
Holland, . . . . .	1	87,557	9
Montgomery, . . . . .	5	141,207	8
Tolland, . . . . .	7	143,857	8
Hampshire County:			
Goshen, . . . . .	3	139,513	8
Middlefield, . . . . .	5	197,425	7-17
Pelham, . . . . .	4	178,137	7-8
Plainfield, . . . . .	5	158,081	8
Prescott, . . . . .	5	160,810	8
Total, . . . . .			23 towns.



All of the foregoing towns except 5 return the legal length of schooling or more. It will be the aim of the Board to hold them all up to the standard which most of them have attained, reserving its approval of reduced schooling for single schools where exceptional conditions seem to compel it.

#### SCHOOL CENSUS DATA.

*Compliance with the School Census Requirement.*—The present report contains the first returns under the new school census law, namely, the returns for Sept. 1, 1899. To find out how far school committees complied with this law, the following question was asked in the school returns blank: Was the school census taken for Sept. 1, 1899, as required by section 19, chapter 496, Acts of 1898? Affirmative answers were received from all.

*Blanks and Directions for the School Census.*—Blanks and directions for taking the school census are furnished each year by the State, without cost to the towns. They are usually sent out in August, in season for the enumeration September 1. The diagram on the following page shows at a glance (1) the age classes to be enumerated in the census, and (2) the age classes affected by the employment laws.

CLASSES TO BE ENUMERATED IN THE SCHOOL CENSUS			PERSON'S AGE		HOW MINORS ARE AFFECTED BY THE EMPLOYMENT LAW		
			NO. OF THE YEAR	IN YEARS			
ILLITERATE MINORS WHO MUST ATTEND SCHOOL IN PLACES THAT MAINTAIN AN EVENING SCHOOL.	CHILDREN WITHIN THE COMPULSORY AGE LIMITS, * FROM SEVEN TO FOURTEEN.	CHILDREN BETWEEN FIVE AND FIFTEEN YEARS OF AGE.	1st		CANNOT BE EMPLOYED IN ANY FACTORY, WORKSHOP OR MERCANTILE ESTABLISHMENT, IF UNDER FOURTEEN.		
			2nd	1			
			3rd	2			
			4th	3			
			5th	4			
			6th	5			
			7th	6			
			8th	7			
			9th	8			
			10th	9			
			11th	10			
			12th	11			
			13th	12			
			14th	13			
			15th	14		CANNOT WORK * WITHOUT AN AGE & SCHOOLING CERTIFICATE	ILLITERATE MINORS CANNOT WORK * IN PLACES THAT MAINTAIN AN EVENING SCHOOL UNLESS THEY ATTEND SCHOOL.
			16th	15			
			17th	16			
			18th	17			
			19th	18			
			20th	19			
			21st	20			

\* "In any factory, workshop, or mercantile establishment" (chapter 494, Acts of 1898).

*Number of Persons in the State within the Compulsory Age Limits.* — By the school legislation of 1898 the compulsory age limits were changed from eight and fourteen to seven and fourteen. The first enumeration of the number of children in the State between seven years of age and fourteen was made for Sept. 1, 1899, the number enumerated being 320,979. The returns of the number of children within the compulsory age limits have not heretofore been satisfactory, either for the State or the schools. The following table gives the data, such as they are, for the past ten years: —

*III. Table showing the number of persons in the State within the compulsory age limits for the past ten years.*

YEARS.	Number within the compulsory age limits.	Increase.	YEARS.	Number within the compulsory age limits.	Increase.
1890, . .	237,142	63	1895, . .	261,642	3,540*
1891, . .	239,790	2,648	1896, . .	249,750	11,892*
1892, . .	243,941	4,151	1897, . .	258,793	9,043
1893, . .	244,081	140	1898, . .	267,836	9,043
1894, . .	265,642	21,101	1899, . .	320,979	53,143

\* Decrease.

*Comments on Table III.* — For 1894 and 1895 the compulsory years were eight and fifteen where manual training was given, but eight and fourteen elsewhere. This extension of the compulsory years, while well intended, rested on so frail and uncertain a basis that the law authorizing it was speedily repealed. The reported increase in the number of children in the State between eight and fourteen during the ten years ending in 1898 was only 13 per cent., while the reported increase in the number between five and fifteen for the same time was 21 per cent. The latter percentage accords better with the State's growth in population for the same time. It is believed that under the new census requirements and the new register rules data for the compulsory years will increase in trustworthiness.

Of the children between seven and fourteen, Sept. 1, 1899, 160,414 were males and 160,565 females.

*Illiterate Minors over Fourteen Years of Age.* — The school census calls for the first time for the number of illiterate minors over fourteen years of age. The law requires that illiterate minors over fourteen must attend school in places that have evening schools. They cannot be legally employed at work unless they attend school in such places. Hence the importance of keeping track of them. The statutory test of illiteracy is inability to read at sight and write legibly simple sentences in the English language. It is not easy for the enumerators to gather illiteracy data. The people are under temptation, on the one hand, to keep facts of illiteracy from the enumerators, and the enumerators have difficulties, on the other hand, in applying the tests of illiteracy to the people. Still, there have been found altogether too many cases for our comfort, — 5,493 for the State, of whom 2,818 are males and 2,675 are females. The returns are incomplete, — Suffolk County, for example, returning only one case, which means that the enumerators did not comply with section 16, chapter 496, Acts of 1898, which requires a return of illiterate minors to be made.

The following statement of returns by counties is given : —

COUNTIES.	Illiterate minors over fourteen.	COUNTIES.	Illiterate minors over fourteen.
Barnstable, . . . .	10	Middlesex, . . . .	737
Berkshire, . . . .	235	Nantucket, . . . .	—
Bristol, . . . . .	1,603	Norfolk, . . . . .	68
Dukes, . . . . .	3	Plymouth, . . . . .	42
Essex, . . . . .	1,384	Suffolk, . . . . .	1
Franklin, . . . . .	30	Worcester, . . . . .	658
Hampden, . . . . .	636	Total, . . . . .	5,493
Hampshire, . . . . .	86		

Nearly the entire number returned comes from 26 towns and cities, — invariably large manufacturing places. From 242 towns, generally the smaller ones, not a single case is reported. The remaining 85 towns and cities report from one case to five or six each. Undoubtedly there are many unreported cases; undoubtedly, too, more trustworthy returns are needed before one ventures far in basing conclusions upon them. It is safe

to say, however, that practically all our native-born children and all who come to us from abroad in early childhood learn to read and write, and that such illiteracy as we have among minors cannot properly be charged to Massachusetts, but is due rather to illiterate persons who come to the State after the age of fourteen. Moreover, the illiteracy to which the school census refers is not always so bad as the word seems to suggest, because under the statutes it does not mean an inability to read and write at all in any language, but an inability only to read and write English.

*Number of Persons in the State between Five and Fifteen Years of Age.*—The following table is of diminishing importance. Not all the children between five and fifteen years of age are in school, nor are they required to be there, since the compulsory years extend only from seven to fourteen. On the other hand, many children under five or over fifteen are in school. An old statute (chapter 43, Public Statutes) requires, however, that each town shall raise for the support of its schools at least three dollars for each child between the ages of five and fifteen, or forfeit its share in the income of the school fund. As a matter of fact, the towns to-day with scarcely an exception are raising much larger sums per child than this scant minimum, and would continue to do so if the requirement were repealed.

*IV. Table showing the number of children between five and fifteen years of age in the State for the past ten years.*

YEARS.	Number of children.	Increase.	YEARS.	Number of children.	Increase.
1890, . .	376,491	6,375	1895, . .	417,335	8,437
1891, . .	382,956	6,465	1896, . .	431,387	14,052
1892, . .	390,039	7,083	1897, . .	441,352	9,965
1893, . .	400,325	10,286	1898, . .	449,099	7,747
1894, . .	408,898	8,573	1899, . .	457,917	8,818
Average increase,		. . . . .			8,779

Of the children between five and fifteen, Sept. 1, 1899, 228,544 were males and 229,373 were females.

## PUBLIC SCHOOL ENROLMENT AND ATTENDANCE DATA.

V. Table showing the number of pupils within the compulsory age limits attending the public schools, as compared with the number of persons in the State within these limits, for the past ten years.

YEARS.	NUMBER WITHIN THE COMPULSORY AGE LIMITS —				Excess of the census return over the public school return.
	By the school census.	Increase.	In the public schools.	Increase.	
1890-1891, . . .	237,142	63	211,913	1,725	25,229
1891-1892, . . .	239,790	2,648	214,173	2,260	25,617
1892-1893, . . .	243,941	4,151	216,429	2,256	27,512
1893-1894, . . .	244,081	140	220,581	4,152	23,500
1894-1895, . . .	265,182	21,101	233,258	12,677	31,924
1895-1896, . . .	261,642	3,540*	229,894	3,364*	31,748
1896-1897, . . .	249,750	11,892*	234,280	4,386	15,470
1897-1898, . . .	258,793	9,043	240,366	6,086	18,427
1898-1899, . . .	267,836	9,043	245,728	5,362	22,108
1899-1900, . . .	320,979	53,143	288,625	42,897	32,354

\* Decrease.

*Comments on Table V.* — The foregoing table is a new one, and is given for what it is worth. While in a rough general way its data are consistent, there are too many eccentricities about it to justify entire confidence in it. The school census returns have not always been satisfactory. The school count has always been uncertain, because of the lack of a proper rule to apply to fluctuating data. The lifting in 1894 of the upper limit of the compulsory years from fourteen to fifteen where manual training was taught, and the subsequent repeal of this vague legislation, introduced serious disturbances into the returns. The change from eight years to seven in the lower limit of the compulsory years accounts for most of the increase during the last school year, the rest being due to natural growth. The number of persons within the compulsory years

in the State is 32,354 larger than the number in the public schools. For most of the schools the school count is for the year preceding Sept. 1, 1899, and so covers a period of less population. Most of these 32,354 children are unquestionably in private schools. Inasmuch as the private schools report an enrolment of 73,205 different pupils of all ages, it would seem as if they ought to have many more pupils within the compulsory years than 32,354. Moreover, there is a considerable number who cannot attend school at all, or who are unlawfully absent. It is expected that under the new census law and the new register rules the returns will improve in trustworthiness. Private school returns have always been less trustworthy than public school returns. Now that State registers are available for private schools, it is hoped that they will keep their attendance data in accordance with its rules. Theoretically the number of children within the compulsory years in the public schools, the number in the private schools and the number excusably absent from both should agree in their sum with the number of such children in the State. Practically, such mathematical agreement is impossible. The combined enrolment of public schools and private is 548,096, or 227,187 more than the census return of persons in the State between seven and fourteen years of age,—an enrolment so large that it cannot but include substantially all who are required by law to attend school. The enrolment of a pupil does not always imply, however, that he is in regular attendance. The enrolment can be kept closer to the census than the attendance to the enrolment.

VI. Table showing the attendance upon the public schools of children under five years of age, between five and fifteen and over fifteen, for the past ten years.

YEARS.	NUMBER OF PUPILS IN ATTENDANCE UPON THE PUBLIC SCHOOLS.						
	Between five and fifteen.	Increase.	Under five.	Increase.	Over fifteen.	Increase.	Of all ages.
1890-1891, . . . . .	339,953	3,853	3,129	551	33,904	1,090	376,986
1891-1892, . . . . .	345,215	5,262	2,912	217*	35,090	1,186	383,217
1892-1893, . . . . .	353,067	7,852	3,283	371	35,395	305	391,745
1893-1894, . . . . .	359,762	6,695	3,742	459	37,105	1,710	400,609
1894-1895, . . . . .	367,047	7,285	4,469	727	39,437	2,332	412,953
1895-1896, . . . . .	377,067	10,020	5,630	1,161	41,656	2,219	424,353
1896-1897, . . . . .	390,613	13,546	6,868	1,238	41,886	230	439,367
1897-1898, . . . . .	403,739	13,126	7,702	834	44,700	2,814	456,141
1898-1899, . . . . .	417,705	13,966	8,954	1,252	45,318	618	471,977
1899-1900, . . . . .	420,242	2,537	9,895	941	44,754	564*	474,891
	Av. increase,	8,414	Av. increase, .	732	Av. increase,	1,194	Av. increase,
							10,339

\* Decrease.



*Comments on Table VI.*—The increase in the number of pupils between five and fifteen in the public schools is only 2,537, as against an average increase of 8,414 during the past ten years. The increase in the number of pupils of all ages is only 2,914, as against an average increase of 10,339 for the past ten years. This falling off is probably due in some measure to the change that is now taking place in the time which the returns cover,—a change from the various school years which they have hitherto covered to the natural school year which ends in the summer several months earlier. This change involves a duplication or second presentation to a certain extent of data already reported, in which second use there is, of course, neither increase nor decrease. The greater care shown in avoiding double enrolments because of the new register rules may account for some of the reduced increase.

*Average Membership and Average Attendance Data.*—The average membership of a school is, in the nature of the case, considerably less than the total enrolment. Thus the total enrolment for 1899–1900 is 474,891; that is to say, so many different pupils have been in attendance for longer or shorter periods during the year, but the average membership is 75,468 less.

*VII. Table showing the average membership, the average attendance, and the percentage of attendance of the public schools for the past ten years.*

YEARS.	Average membership.	Increase.	Average attendance.	Increase.	Percentage of attendance.
1890–1891, . .	307,953	4,429	278,602	4,692	.905
1891–1892, . .	313,214	5,261	283,648	5,046	.906
1892–1893, . .	320,862	7,648	290,801	7,153	.906
1893–1894, . .	328,455	7,593	299,069	8,268	.911
1894–1895, . .	341,671	13,216	313,693	14,624	.918
1895–1896, . .	349,336	7,665	321,685	7,992	.921
1896–1897, . .	363,866	14,530	334,939	13,254	.921
1897–1898, . .	378,770	14,904	349,147	14,208	.922
1898–1899, . .	390,900	12,130	360,313	11,160	.922
1899–1900, . .	399,423	8,523	366,136	5,823	.917
	Av. increase,	9,590	Av. increase,	9,222	—

The reduced gains in the average membership and the average attendance doubtless reflect to some extent the movement towards unification of the several school years as well as the increased stringency of the register rules. The drop in the percentage of attendance is probably all due to this increased stringency.

In the sixty-third report, on pages 103-105, the following topics were considered: —

1. Fictitious or forced records of excellent attendance.
2. The duty of teachers towards cases of irregular attendance.
3. The danger of pushing the attendance *esprit de corps* too far.
4. The nature and definition of necessary absence.
5. The right of the school authorities to require proper excuses for absence from parents or guardians.

It is quite possible for the percentage of attendance to fall a little while attendance conditions are growing more wholesome. There is still too strong a trend towards dropping from the membership and from thought all the irregular cases possible, so as to keep the percentage of attendance high. Such cases are the very ones for the schools to cling to, follow up and save, whatever becomes of the percentage.

#### PUBLIC SCHOOL TEACHERS AND THEIR WAGES.

*School Positions filled by a Reducing Number of Teachers.* — Table VIII., on the following page, shows that the number of different teaching positions to be filled, that is to say, the number of different teachers required by the public schools, has increased during ten years by 3,063, while the number of different teachers actually employed, which, of course, is always larger than the number of positions, has increased during the same period by a somewhat smaller number, namely, 2,929. The increase in the number of the public schools for the ten years is not known, because of the uncertainty of the count for the first four years of the ten.

VIII. Table showing the numbers of public school teachers employed, of public school teachers required and of public school teachers who have attended normal schools, with their wages per month, for the past ten years.

YEARS.	DIFFERENT TEACHERS EMPLOYED.			TEACHERS REQUIRED.			TEACHERS FROM NORMAL SCHOOLS.				WAGES PER MONTH.			
	Men.	Women.	Total.	Increase.	Total.	Increase.	Total.	Increase.	Graduates.	Increase.	Men.	Increase.	Women.	Increase.
1890-1891, .	1,016	9,630	10,646	322	9,227	292	3,736	232	3,070	251	\$118 07	\$8 51*	\$48 17	\$3 38
1891-1892, .	992	9,973	10,965	319	9,486	259	4,059	323	3,267	197	134 22	16 15	46 52	1 65*
1892-1893, .	989	10,244	11,233	268	9,751	265	4,131	72	3,473	206	140 73	6 51	48 13	1 61
1893-1894, .	1,009	10,705	11,714	581	10,073	322	4,222	91	3,575	102	129 41	11 32*	47 91	22*
1894-1895, .	1,046	10,981	12,027	313	10,409	336	4,368	146	3,734	159	128 55	86*	48 38	47
1895-1896, .	1,078	11,197	12,275	248	10,682	273	4,540	172	3,903	169	136 03	7 48	50 30	1 92
1896-1897, .	1,120	11,723	12,843	568	11,301	619	4,661	121	4,103	200	144 80	8 77	52 20	1 90
1897-1898, .	1,174	12,029	13,203	360	11,678	377	5,087	426	4,425	322	137 50	7 30*	51 44	76*
1898-1899, .	1,197	12,205	13,402	199	11,959	281	5,404	317	4,687	262	136 23	1 27*	51 41	03*
1899-1900, .	1,196	12,379	13,575	173	12,290	331	5,831	427	4,905	218	136 54	31	52 50	1 09

\* Decrease.

*Number of Pupils per Teacher.*—The average membership of the public schools is 399,423. Divide this number by 12,290, the number of teaching positions, and the quotient is 32; that is, there are 32 pupils on an average for each position. Inasmuch as many of the positions, like those of special teachers, for example, do not involve the care of class rooms, the number of pupils per teacher in charge of a class room is slightly larger. Assume a thousand special positions, reduce the number of school positions accordingly, and the number of pupils for each position or class room or teacher in charge is 35. This average would be more satisfactory if it approximately stood for the number of pupils cared for by each teacher in the Commonwealth. But 35 can be the average of 5 and 65 or of 10, 15 and 80, or of innumerable collocations of unsatisfactory numbers. It is illegal for a town to force more than 50 pupils upon a single teacher, unless the town formally votes to dispense with the assistant whom the law otherwise requires. Fifty is altogether too large a number for one teacher to care for. Sometimes the burden of the single teacher rises to 60 and even 70 or more pupils,—an imposition upon the teacher, an injustice to pupils and parents and a reproach to a town. At the other extreme stands the school of 4, 6 or 8 pupils,—a school open to two classes of very serious objections. First, it is needlessly expensive, and therefore extravagant. Why maintain three inferior school-houses, when one good one will answer the purpose better at reduced expense? Why employ three teachers, when the number of pupils all told makes but a modest charge for one? The child without a playmate is to be pitied. It is good for him to have brothers and sisters with whom to grow up, a little better if he can add to them companions from the neighborhood, still better if he can also have friendly relations to some slight extent with young people in other parts of the town or beyond its borders. So, too, in the child's schooling it is doubtless true that up to a certain limit the larger and more varied his contact with others at the same stage, the truer foretaste he gets of the life that confronts him. There is just the attrition he needs for his own angularities, just the chance he should use to adjust himself to all sorts of people unlike himself and all sorts of views different from his own.

This social adjustment is just as imperative as the individual development. Granted that the school of 5 or 10 and the school of 25 or 30 are each as good as it can be, the greater wealth of opportunity and of stimulus for the child is with the latter. He is more likely to find his own measure and place, more likely to rise to his obligations to others, in the larger field.

*Ratio of Men to Women in the Teaching Force of the Public Schools.*—The ratio of the number of men employed as teachers to the number of women employed has remained constant for three years, as appears in the following statement:—

YEARS.	Ratio of men to women.	YEARS.	Ratio of men to women.
1891, . . . .	1 to 9.5	1896, . . . .	1 to 10.5
1892, . . . .	1 to 10.1	1897, . . . .	1 to 10.5
1893, . . . .	1 to 10.4	1898, . . . .	1 to 10.2
1894, . . . .	1 to 10.6	1899, . . . .	1 to 10.2
1895, . . . .	1 to 10.5	1900, . . . .	1 to 10.2

*Permanency of Tenure.*—By comparing the number of different teachers employed with the number of positions to be filled, it is possible to ascertain whether the trend is away from or towards greater permanency of tenure. The following statement gives the ratio of the number of teachers to the number of positions, for each of the last ten years:—

YEARS.	Ratio of teachers to positions.	YEARS.	Ratio of teachers to positions.
1891, . . . .	1.15 to 1	1896, . . . .	1.15 to 1
1892, . . . .	1.16 to 1	1897, . . . .	1.14 to 1
1893, . . . .	1.15 to 1	1898, . . . .	1.12 to 1
1894, . . . .	1.16 to 1	1899, . . . .	1.12 to 1
1895, . . . .	1.16 to 1	1900, . . . .	1.10 to 1

*Proportion of Normal School Pupils in the Teaching Force.* — The proportion of professionally trained persons entering the ranks of teachers is steadily growing, as the following statement clearly shows : —

YEARS.	PERCENTAGE OF TEACHERS —		YEARS.	PERCENTAGE OF TEACHERS —	
	Who have attended normal schools.	Who are graduates of normal schools.		Who have attended normal schools.	Who are graduates of normal schools.
1891, . .	35.1	29.0	1896, . .	37.0	31.8
1892, . .	37.0	29.8	1897, . .	36.3	31.9
1893, . .	38.8	30.9	1898, . .	38.5	33.5
1894, . .	36.0	30.5	1899, . .	40.3	34.9
1895, . .	36.3	31.0	1900, . .	43.0	36.1

It should not be overlooked that most of our older teachers began their service when normal training was in its infancy and but little sought after. Many of our teachers, moreover, particularly those in the high schools, are college graduates. The increase in the proportion of normally trained teachers, in view of these facts, is marked and gratifying.

*Wages of Teachers.* — The wages of teachers as the table reveals them show considerable fluctuations for the ten years. In the later years of the period the methods of averaging wages have been more nearly uniform, and the results are believed to be gaining in trustworthiness. These averages show only the general drift, — whether wages are rising, on the whole, or falling. But they are not of any special service in the ordinary comparisons of salaries which are so frequently made. Here the salary scales of the several towns and cities need to be consulted. The following is the present salary schedule for Boston, the salaries being the highest paid in the State : —

*Normal School.*

Head master, . . . . .	\$3,780
Master, first year, \$2,340; annual increase, \$144; maximum, . .	3,060
Assistants, first year, \$1,140; annual increase, \$60; maximum, . .	1,620

*Latin and High Schools.*

Head masters, . . . . .	\$3,780
Masters, . . . . .	3,060
Junior masters, first year, \$1,476; annual increase (for eleven years), \$144; salary for the twelfth and subsequent years, with the rank of master, . . . . .	3,060
Assistant principal, Girls' High School, . . . . .	2,040
Assistant principal, Roxbury High School, first year, \$1,620; annual increase, \$72; maximum, . . . . .	1,836
Assistants, first year, \$972; annual increase, \$72; maximum, . . . . .	1,620

*Mechanic Arts High School.*

Head master, . . . . .	\$3,780
Masters, . . . . .	3,060
Junior masters, first year, \$1,476; annual increase (for eleven years), \$144; salary for the twelfth and subsequent years, with the rank of master, . . . . .	3,060
Instructors, first year, \$1,500; annual increase, \$120; maximum, . . . . .	2,340
Assistant instructors, first year, \$972; annual increase, \$72; maximum, . . . . .	1,620
Instructor of metal working, first year, \$1,800; annual increase, \$60; maximum, . . . . .	2,580

*Grammar Schools.*

Masters, first year, \$2,580; annual increase, \$120; maximum, . . . . .	\$3,180
Sub-masters, first year, \$1,500; annual increase, \$120; maximum, . . . . .	2,340
First assistants, first year, \$972; annual increase, \$48; maximum, . . . . .	1,212
Assistants, first year, \$552; annual increase, \$48; maximum, . . . . .	936

*Primary Schools.*

First assistants, first year, \$984; annual increase, \$48; maximum, . . . . .	\$1,080
Assistants, first year, \$552; annual increase, \$48; maximum, . . . . .	936

*Kindergartens.*

Principals, first year, \$600; annual increase, \$48; maximum, . . . . .	\$792
Assistants, first year, \$432; annual increase, \$48; maximum, . . . . .	624

*Special Instructors.* — There is a long list of special instructors in the Boston schools, of whom directors of drawing, of music, of physical training and of French and German receive \$3,000 each; the director of kindergartens and the principal of the Horace Mann School, \$2,880 each; instructors of music, from \$880 to \$2,640 each; instructors of drawing, from \$800 to \$2,508 each; the principal of the elementary manual training schools, \$2,508; assistants in the elementary manual training

schools, \$552 the first year, with an annual increase of \$48 until a maximum of \$936 is reached; the principal of the schools of cookery, \$1,500; instructors in the schools of cookery, from \$552 the first year to a maximum of \$936, the annual increase being \$48; the instructor of military drill, \$2,000; teachers of sewing, from \$144 each (for one division only) up to \$936 (for more than eleven divisions); and various other teachers of chemistry, physical training, phonography and typewriting, modern languages, etc., with assistants in laboratories, modern languages, physical training, etc., from \$500 to \$2,280.

*Evening Schools.* — The principal of the evening high school receives from \$40 to \$50 per week; his assistants, \$4 per evening; the principals of the elementary evening schools, from \$4 to \$5 an evening; their first assistants, from \$2 to \$2.50 per evening; other assistants, \$2 per evening; the principals of evening drawing schools, from \$7 to \$8 per evening; and their assistants, from \$4 to \$6 per evening.

### HIGH SCHOOLS.

*IX. Table showing the number of high schools for ten years, and the number of pupils attending; also the ratio of the high school enrolment to the total school enrolment.*

YEARS.	High schools.	Pupils.	Percentage of total school enrolment.	YEARS.	High schools.	Pupils.	Percentage of total school enrolment.
1891, .	244	26,294	.069	1896, .	257	34,323	.080
1892, .	242	27,482	.071	1897, .	262	36,228	.083
1893, .	247	28,582	.072	1898, .	261	38,133	.084
1894, .	255	30,540	.076	1899, .	262	40,003	.085
1895, .	252	32,752	.079	1900, .	261	40,592	.085

*The High Schools included in the Table.* — The foregoing table conforms strictly to the returns received from the school committees. It includes several schools that serve as public high schools, since they offer free tuition to the children, but



which are not public high schools in the sense of being under the order and superintendence of the town authorities. The relations of trustees on the one hand and of school committees on the other to some of these schools are so interwoven that school committees are sometimes perplexed to know whether such schools should be returned as public or private.

*Academies serving as High Schools.* — The following academies serve as high schools, though under the control of trustees only or under various kinds and degrees of joint control by trustees and school committees, and so are returned as high schools : —

- |  |   |
|--|---|
| 1. Andover, Punchard Free School.                          | 15. Monson, Monson Academy.   |
| 2. Ashburnham, Cushing Academy.                            | 16. Newbury, Dummer Academy.  |
| 3. Ashfield, Sanderson Academy.                            | 17. Newburyport, High and Putnam Free School.                           |
| 4. Bernardston, Powers Institute.                          | 18. New Salem, New Salem High School and Academy.                       |
| 5. Billerica, Howe Academy.                                | 19. Sherborn, Sawin Academy and Dowse High School.                      |
| 6. Boxford, Barker Free School.                            | 20. West Bridgewater, Howard Seminary and West Bridgewater High School. |
| 7. Brimfield, Hitchcock Free School.                       | 21. Westfield, High School, once the Academy.                           |
| 8. Deerfield, Deerfield Academy and Dickinson High School. | 22. Westford, Westford Academy.   |
| 9. Dudley, Nichols Academy.                                | 23. Winchendon, Murdock School.   |
| 10. Duxbury, Partridge Academy.                            |   |
| 11. Hadley, Hopkins Academy.                               |   |
| 12. Ipswich, Manning School.                               |   |
| 13. Leicester, Leicester Academy.                          |   |
| 14. Marion, Tabor Academy.                                 |   |

For a detailed account of the relations of these schools to public and private authorities, see pages 106–109 of the sixty-second report of the Board.

#### PUBLIC EVENING SCHOOLS.

*Distribution and Classification of Public Evening Schools.* — The following statement shows the distribution and classification of evening schools throughout the State : —

TOWNS AND CITIES.	Population, 1895.	High.	Elementary.	Drawing.	Miscella- neous.
Auburn, . . . . *	1,598	—	1	—	—
Beverly, . . . .	11,806	—	1	2	—
Boston, . . . .	496,920	1	12	5	—
Brockton, . . . .	33,165	1	1	1	—
Brookline, . . . .	16,164	—	2	1	1
Cambridge, . . . .	81,643	1	4	2	—
Chelsea, . . . .	31,264	—	1	—	—
Chicopee, . . . .	16,420	—	3	4	—
Clinton, . . . .	11,497	—	1	1	—
Dudley, . . . .	3,203	—	2	—	—
Easton, . . . .	4,452	—	1	—	—
Everett, . . . .	18,573	—	1	1	3
Fall River, . . . .	89,203	1	18	1	—
Fitchburg, . . . .	26,409	—	2	1	—
Framingham, . . . .	9,512	—	1	—	—
Greenfield, . . . .	6,229	—	1	—	—
Gardner, . . . .	9,182	—	1	1	—
Haverhill, . . . .	30,209	—	2	2	1
Holyoke, . . . .	40,322	—	4	1	1
Hyde Park, . . . .	11,826	—	2	1	—
Lawrence, . . . .	52,164	1	3	1	—
Lowell, . . . .	84,367	1	11	1	—
Lynn, . . . .	62,354	1	1	1	2
Malden, . . . .	29,708	—	1	1	—
Marlborough, . . . .	14,977	—	1	—	—
Medford, . . . .	14,474	—	1	—	—
Natick, . . . .	8,814	—	1	—	—

TOWNS AND CITIES.	Population, 1895.	High.	Elementary.	Drawing.	Miscella- neous.
New Bedford, . .	55,251	1	5	1	—
Newburyport, . .	14,552	—	2	—	—
Newton, . . . .	27,590	—	1	1	—
North Adams, . .	19,135	—	3	1	—
Northampton, . .	16,746	—	4	1	—
North Attleborough, .	6,576	—	1	—	—
Northbridge, . . .	5,286	—	2	—	—
Peabody, . . . .	10,507	—	2	—	—
Pittsfield, . . . .	20,461	—	3	1	—
Quincy, . . . . .	20,712	—	2	1	—
Salem, . . . . .	34,473	—	4	1	—
Somerville, . . . .	52,200	—	3	1	—
Southbridge, . . .	8,250	—	4	—	—
South Hadley, . . .	4,443	—	1	—	—
Spencer, . . . . .	7,614	—	1	—	—
Springfield, . . . .	51,522	1	4	2	3
Taunton, . . . . .	27,115	—	6	1	—
Waltham, . . . . .	20,876	—	1	1	1
Webster, . . . . .	7,799	—	1	—	—
Westfield, . . . . .	10,663	—	1	1	—
Woburn, . . . . .	14,178	—	1	—	—
Worcester, . . . . .	98,767	1	14	5	3
Totals, . . . . .	1,751,171	10	146	46	15

The miscellaneous schools are for stenography and type-writing, for commercial subjects, for cooking and sewing, for modeling and for certain trades.

The number of cities required to maintain evening element-

ary schools is 33. All of them complied with the law last year except Melrose and Gloucester. The number of towns required to maintain such schools is 6, of which Brookline, Clinton, Hyde Park, Peabody and Westfield complied with the law last year, and Weymouth did not.

The number of cities required to maintain evening high schools if petitioned to do so is 10. Of these cities, Boston, Cambridge, Fall River, Lawrence, Lowell, Lynn, New Bedford, Springfield and Worcester maintain such schools, and Somerville does not.

*Attendance and Cost of the Public Evening Schools.* — The attendance upon the public evening schools seems to have fallen off considerably from last year, while the expense has slightly increased.

X. Table showing the number of towns and cities that have maintained evening schools, the number of such schools and of teachers therein, with their attendance and the expense of supporting them, for the past ten years.

YEARS.	NUMBER OF —			ATTENDANCE.				Expense.
	Towns.	Schools.	Teachers.	Males.	Females.	Total.	Average.	
1890-1891,	55	266	1,018	21,131	7,322	28,453	14,526	\$151,279 24
1891-1892,	55	255	1,048	22,340	6,881	29,221	15,287	131,557 63
1892-1893,	58	244	1,088	21,615	6,169	27,784	14,881	152,269 06
1893-1894,	55	285	1,194	25,385	7,534	32,919	17,420	171,544 57
1894-1895,	54	747*	1,166	22,277	6,991	29,268	15,371	176,188 14
1895-1896,	49	681*	1,197	20,786	9,764	30,550	16,282	176,304 02
1896-1897,	55	739*	1,352	20,126	9,674	29,800	16,472	185,862 42
1897-1898,	52	740*	1,262	22,514	9,904	32,418	16,714	198,666 43
1898-1899,	50	767*	1,227	24,154	12,250	36,404	18,245	207,738 85
1899-1900,	49	783*	1,263	20,023	10,585	30,608	16,193	208,277 25

\* Based upon the single class room as the unit of comparison.

The evening schools in some places show a trend to more definite and carefully planned courses. Incentives to more serious effort are thus held out, and diplomas awarded for the successful completion of designated work. In regularity of attendance they cannot compete with the day schools. They do not, they cannot expect to, command the full strength of their pupils. Held in the evening, they have to put up with such vigor as survives the day. They have to contend, moreover, with the social life, the entertainments, the business, the innumerable distractions of the evening. The students to whom they appeal show wide extremes of purpose. There are cases of steadiness that extort admiration, and of whims that hardly last from one evening to the next. The evening school cannot know these distractions and diversities in advance; and, if it could, it would still be an open question whether it should try to shut out the very persons whom it could serve most, could it only hold them down to even work. On the other hand, it is expensive and discouraging to organize evening schools on a basis of 30,000 when only 15,000 attend. If any system of evening schools succeeds in bringing its organization and its attendance into reasonable relations to each other, it would render an inestimable service to the rest by explaining to them how it solves the problem. The evening schools are undoubtedly profitable to large numbers, but, without further expansion, they should serve still larger numbers.

#### PUBLIC KINDERGARTENS.

*Public Kindergarten Statistics.* —The first public kindergarten statistics for the State were gathered three years ago. Public kindergartens, however, began to be established some years earlier. Frequently, where they have been made a part of the public school system, they have had a previous trial through private enterprise. The Boston school report of 1899 says: —

In September, 1888, the city assumed charge of 14 kindergartens, employing 28 teachers, which, for many years previous, had been supported at private expense. Since that time the number has gradually increased, until at the present time there are 69 kindergartens, requiring 135 teachers.

To show the yearly growth of this branch of instruction the following table of expenses is given :—

1889-1890, . . .	\$36,531 12	1894-1895, . . .	\$68,943 82
1890-1891, . . .	36,105 87	1895-1896, . . .	78,416 43
1891-1892, . . .	36,777 06	1896-1897, . . .	87,939 88
1892-1893, . . .	54,318 46	1897-1898, . . .	100,385 86
1893-1894, . . .	56,592 92	1898-1899, . . .	110,119 23

The distribution of these schools throughout the city is very uneven. . . .

The demand for new kindergartens is still active, notwithstanding the large number in operation, and it will probably continue until the kindergarten is accepted throughout the entire city as a necessary part of the school system.

The Cambridge kindergartens have had a similar history. In both Cambridge and Boston the high credit of demonstrating the value of the kindergarten and of leading the public to accept it belongs to Mrs. Quincy A. Shaw.

The following statement shows the present extent of the public kindergarten movement :—

COUNTIES, CITIES AND TOWNS.	Number of kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.
Barnstable County :				
None, . . . .	—	—	—	—
Berkshire County :				
North Adams, . . .	4	8	337	4
Bristol County :				
Attleborough, . . .	1	2	116	3
Easton, . . . .	1	2	63	3½
Fall River, . . . .	3	6	317	3
New Bedford, . . .	3	6	250	4
Dukes County :				
None, . . . .	—	—	—	—

COUNTIES, CITIES AND TOWNS.	Number of kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.
Essex County:				
Andover, . . . .	3	4	109	3
Haverhill, . . . .	1	2	61	4
Marblehead, . . . .	2	4	97	4
Peabody, . . . .	2	4	100	4
Salem, . . . .	8	13	405	4
Franklin County:				
Greenfield, . . . .	2	2	73	3½
Northfield, . . . .	1	1	33	3½
Hampden County:				
Chicopee, . . . .	2	2	45	4
Holyoke, . . . .	5	10	180	4½
Springfield, . . . .	7	20	725	4
Westfield, . . . .	2	4	60	3½
West Springfield, . . . .	3	5	181	4½
Hampshire County:				
Northampton, . . . .	3	5	145	3
Middlesex County:				
Cambridge, . . . .	12	24	803	3½
Lowell, . . . .	12	24	1,083	3½
Malden, . . . .	3	7	190	3¾
Medford, . . . .	6	8	353	3¾
Melrose, . . . .	4	7	292	3½
Newton, . . . .	12	30	785	4
Somerville, . . . .	5	10	285	3½
Watertown, . . . .	1	2	59	4
Winchester, . . . .	4	8	270	3½
Nantucket County:				
None, . . . .	—	—	—	—
Norfolk County:				
Braintree, . . . .	5	8	170	4
Brookline, . . . .	11	19	477	3½
Dedham, . . . .	2	4	79	3½
Milton, . . . .	4	7	227	3½



COUNTIES, CITIES AND TOWNS.	Number of kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.
Plymouth County :				
Bridgewater, . . .	1	2	46	4
Suffolk County :				
Boston, . . . .	69	135	5,134	3½
Revere, . . . .	3	6	136	4
Worcester County :				
Hopedale, . . . .	1	2	27	4
Worcester, . . . .	12	20	544	4
Totals (36 towns), .	220	423	14,257	—

The public kindergarten movement for the past three years may be inferred from the following statement : —

YEAR.	Number of kindergartens.	Increase.	Number of teachers.	Increase.	Number of pupils.	Increase.
1898, . . .	192	—	372	—	12,550	—
1899, . . .	210	18	396	24	14,008	1,458
1900, . . .	220	10	423	27	14,257	249

#### COST OF THE PUBLIC SCHOOLS.

*Two Groups of Expenditures for the Public Schools.* — In the present report all expenditures for the public schools are brought together for the first time in two natural groups, to wit : —

I. Expenditures for the *support of public schools*.

II. Expenditures for *public school buildings*.

The Legislature of 1900 so extended the statutory definition of support\* that now for the first time it includes expenditures of every kind for the public schools except those for public school buildings, such expenditures being for the following designated purposes : —

\* Chapter 175, Acts of 1900.

1. Teachers' wages.
2. Conveyance of pupils.
3. Fuel and care of school premises.
4. School committees, clerks, truant officers, etc.
5. Superintendents of schools.
6. Text-books and supplies.
7. School sundries.

Previous to 1900, items 5, 6 and 7 were not included in the statutory definition of support. Item 2 was not included previous to 1896. The earlier definition was framed in simpler times, when children were not conveyed to school, when superintendents were unknown, when pupils bought their own text-books, and sundries, if there were any, made an inconspicuous showing in the school bills. An appropriation of money for the support of public schools covers all the purposes mentioned in the statutory definition of the word.

Expenditures for public school buildings, for whatever purpose, are separated by statute from expenditures for support. Building expenditures are for the following purposes:—

1. New schoolhouses.
2. Alterations and permanent improvements.
3. Ordinary repairs.

Money for new schoolhouses, including the land, is usually raised on bonds or notes, though sometimes by immediate taxation; for alterations and permanent improvements, sometimes by loan and sometimes by immediate taxation; for ordinary repairs, usually by immediate taxation, but sometimes, especially if the repairs are extensive, by loan. The larger part of the total expenditure for buildings comes from loans whose final payment is distributed over a series of years. Sometimes these loans cover a variety of municipal purposes, of which school buildings are only one. Often sinking funds are established for their payment, so that the burden of payment is somewhat evenly reduced by annual taxation after all. Inasmuch as payments of loans for school buildings are thus interwoven with, covered up by, and lost in the general financial operations of towns and cities, so that it is hopeless to pick them out and account for them each year, they are not called for in the blank for the annual school returns, and so are

never reported. The only way left, therefore, is to capture the money expended on buildings, whatever its source, at the time it is actually expended, and to treat it as if it were immediately raised by taxation during the year of its expenditure, whether it was so raised or not.

*An Important Distinction.*—It should be noted that the *total local expenditure for the support of public schools* is somewhat larger than the *total local taxation cost of such support*, since the total expenditure includes money from other sources than local taxation, as from the State, the income of local funds, voluntary contributions, etc. The present report gives in order :—

1. The total local expenditure for support.
2. The items of this total expenditure.
3. The amount from other sources than local taxation included under the total local expenditure as given under 1.
4. The local taxation cost of support, or the amount given under 1 diminished by the amount given under 3.

*XI. Table showing the total local expenditure for the support of public schools for the past ten years.*

YEARS.	Total expenditure for support.	Increase.	YEARS.	Total expenditure for support.	Increase.
1890-1891, . .	\$6,652,972 67	\$237,528 16	1895-1896, . .	\$8,639,532 20	\$479,079 83
1891-1892, . .	6,668,690 93	15,718 26	1896-1897, . .	9,132,291 97	492,759 77
1892-1893, . .	7,388,605 29	719,914 36	1897-1898, . .	9,839,579 33	707,287 36
1893-1894, . .	7,800,254 31	411,649 02	1898-1899, . .	10,286,528 01	446,948 68
1894-1895, . .	8,160,452 37	360,198 06	1899-1900, . .	10,677,485 74	390,957 73
Average increase, . . . . .					\$426,204 12

*Total Expenditure for Teachers' Wages.*—The total expenditure for teachers' wages for the past year was \$7,891,-458.80. This sum covers the salaries of regular and special teachers, the pay of substitutes and part-time teachers, — in fact, all sums paid out for instruction in the public schools. The number of teachers required by the public schools for the past year was 12,290. Dividing the total wages by the total

number of persons receiving such wages, we obtain as a quotient \$642.10, which may be assumed as the average pay of the Massachusetts teacher. The average length of schooling is 9 months and 9 days, or 9.45 months, the number of school days per month being 20. Dividing \$642.10 by 9.45, we obtain \$67.95 as the average monthly pay of the Massachusetts teacher. This is \$15.45 higher than the average monthly pay of women the past year, and \$68.59 less than the average monthly pay of men during the same period.

*Total Expenditure for the Conveyance of Pupils.*—Under the old school district system, authorized in 1789 and finally abolished in 1882, each town was divided into numerous school districts. Sometimes the number of such districts was preposterously large,—twenty, thirty and even more, where a fourth of the number ought to have sufficed. Each district, as a result of various legislative enactments, came to be the educational unit for nearly all school purposes, town control sinking to insignificant proportions. The result in numerous towns was a large number of inferior school buildings and thinly attended schools,—as good buildings and well-managed schools, no doubt, as the multiplicity of districts and the humble resources of the times permitted, but at the best, with few exceptions, far from being satisfactory. With the great urban development of the State came a decline in the population of many towns. With higher ideals of public schooling came increasing stringency in the State school requirements. With the abandonment of the district system the school spirit of the town began to revive; it became less selfish, more robust, more progressive. Now all these forces have been bringing out into sharp and painful relief the antiquated buildings, the dwindling schools, the inadequate privileges that belong to an age that is past. And this is why the smaller towns so generally are consolidating their feebler schools and conveying their children to stronger central ones. The following table approximately measures the growth and extent of this movement:—

*XII. Table showing the total expenditure for the conveyance of children for the past ten years.*

YEARS.	Expended for conveyance.	Increase.	YEARS.	Expended for conveyance.	Increase.
1890-1891, .	\$30,648 68	\$6,503 56	1895-1896, .	\$91,136 11	\$14,527 82
1891-1892, .	38,726 07	8,077 39	1896-1897, .	105,317 13	14,181 02
1892-1893, .	50,590 41	11,844 34	1897-1898, .	123,032 41	17,715 28
1893-1894, .	63,617 98	13,027 57	1898-1899, .	127,409 22	4,376 81
1894-1895, .	76,608 29	12,990 31	1899-1900, .	141,753 84	14,344 62

The secretary receives numerous letters relative to the consolidation of schools and the conveyance of children. Some wish to know by what authority school committees discontinue schools for good. Some inquire how school committees can be made to furnish better conveyance facilities. Most of the letters are from parents, who think their children are compelled to walk too far. These complaints indicate that the consolidation of schools, though generally profitable and popular, is not without its perplexities.

For a full consideration of the advantages and disadvantages of the policy, see the report of Mr. G. T. Fletcher, agent of the Board, entitled, "The Consolidation of Schools and the Conveyance of Children." It may be had on application at the office.

The importance of mutual consideration and forbearance, when differences relative to conveyance arise between parents and the school committee, needs to be emphasized. The attention of both sides when such disagreements occur is again called to what was said in the report last year: —

Such consolidation is not without its perplexities. The local school has been closed; conveyance for most of the children has been provided without difficulty; but here is a child, for example, in a part of the town remote or difficult of access, — a child, it may be, for whom the discontinued school was by no means convenient,

though with effort attainable. Now it costs as much to convey this child as a score of the rest. The cost is disproportionate, makes a sad inroad upon the often scant appropriation, looks ugly in the annual report. Nor does it help the situation, if the parent so tenaciously stands on his legal right to convenient schooling for his child, or on his right to consideration as a tax payer, or on both, as to refuse to make those possible concessions that his isolation should in equity prompt. It is hardly surprising that now and then a school committee shrinks from providing the expensive conveyance that would solve the problem. The result is, that a parent whose legal duty is to send his child to school cannot discharge it; a school committee bound by law not only to provide convenient schooling for children but to enforce their schooling, whether it is convenient or not, fails in both; and a child entitled to the benefits of school misses what Massachusetts prides herself in regarding as his richest birthright.

Parents in such cases not unfrequently apply to the State Board of Education for redress. Only one answer is possible, namely, that the Board has no authority whatever in the matter. The law has placed, and very properly, too, full control here in the hands of the school committee. Its decisions are final, unless the courts overrule them or the people reverse them by changing the committee. The Board, through its secretary and agents, does not hesitate, however, to point out rights on the one hand and duties on the other, and to urge the utmost of mutual consideration, to the end that the supreme purpose of the law, to wit, the schooling of the child, shall not fail of accomplishment.

It becomes parents whose isolation makes it hard for a town to school their children to accept certain consequences of their isolation. Walking a little farther than others are required to walk, meeting the carriage on the neighboring highway or where the school used to be held, attending school over the border in an adjoining town, or otherwise waiving the full measure of accommodation accorded to others less inconveniently placed, — these are samples of concession that smooth the way to a favorable outcome. They may not reduce very much the burden of the town, but they may win a disposition to bear it more gracefully. It becomes the school committee, on its side, to do its utmost, in spite of any exceptional cost involved, to make the schooling convenient for all, and, when it has done so, to insist, even to invoking the law, that children within the compulsory years shall avail themselves of it. Hardly a situation can occur so extraordinary or unique but that the committee can compass it, if it will.

*Total Expenditure for Fuel and Care of School Premises.*—The total expenditure for fuel and the care of school premises is \$1,287,540.80. This item has never been separately worked out heretofore; consequently a comparison with corresponding data for previous years is not possible. The expenditure for fuel and care is 12 per cent. of the total expenditure for support. In Boston the per cent. is only 10.

*Total Expenditures for Supervision.*—Expenditures for supervision naturally divide into two groups,—those for supervision by school committees and those for supervision by superintendents of schools. Under the former head are included the salaries of school committees and of all persons, superintendents of schools excepted, employed by them to assist in supervisory work, as the secretaries, clerks, truant officers and so on. Under the latter head are included the salaries of superintendents and assistant superintendents or supervisors.

*XIII. Table showing the total expenditure for supervision by school committees during the past ten years.*

YEARS.	Supervision by school committees.	Increase.	YEARS.	Supervision by school committees.	Increase.
1890-1891,	\$87,358 84	\$2,610 31*	1895-1896,	\$92,250 90	\$969 39
1891-1892,	79,481 48	7,877 36*	1896-1897,	95,664 80	3,413 90
1892-1893,	89,026 73	9,545 25	1897-1898,	101,412 86	5,748 06
1893-1894,	90,358 77	1,332 04	1898-1899,	105,002 46	3,589 60
1894-1895,	91,281 51	922 74	1899-1900,	140,823 31	35,820 85

\* Decrease.

The large increase for the last year of the table is due chiefly to the inclusion of items not heretofore included under expenditures for supervision, as the salaries of truant officers, who are closely connected with the supervisory work of the school committee.

*XIV. Table showing the total expenditure for supervision by superintendents of schools during the past ten years.*

YEARS.	Supervision by superintendents.	Increase.	YEARS.	Supervision by superintendents.	Increase.
1890-1891,	\$157,804 79	\$19,131 51	1895-1896,	\$224,423 17	\$6,050 69
1891-1892,	170,218 48	12,413 69	1896-1897,	230,425 66	6,002 49
1892-1893,	195,737 63	25,519 15	1897-1898,	231,719 13	1,293 47
1893-1894,	209,536 64	13,799 01	1898-1899,	233,561 77	1,842 64
1894-1895,	218,372 48	8,835 84	1899-1900,	281,887 51	48,325 74

The large increase for the past year is due in part to natural growth, but chiefly to the inclusion in full for the first time of the State's contributions to the salaries of the district superintendents. The table aims to give, it should be noted, the total expenditure for such supervision, and not its taxation cost to the towns. The State assisted during the past year 52 superintendency districts to the extent of \$1,250 each.

*XV. Table showing the total expenditure for supervision by school committees and superintendents of schools for the past ten years.*

YEARS.	Supervision.	Increase.	YEARS.	Supervision.	Increase.
1890-1891,	\$245,163 63	\$17,521 20	1895-1896,	\$316,674 07	\$7,020 08
1891-1892,	249,699 96	4,536 33	1896-1897,	326,090 46	9,416 39
1892-1893,	284,764 36	35,064 40	1897-1898,	333,131 99	7,041 53
1893-1894,	299,895 41	15,131 05	1898-1899,	338,564 23	5,432 24
1894-1895,	309,653 99	9,758 58	1899-1900,	422,710 82	84,146 59

The large increase for the last year has already been explained as due to the inclusion of items omitted in former years. For the State, the expenditure for supervision is about 4 per cent.



of the total expenditure for support. For Boston, the per cent. is about 3, notwithstanding the fact that the city pays \$70,645.28 for supervision, or about one sixth of the total for the State.

*Total Expenditure for Text-books and Supplies.* — The total expenditure for text-books and supplies for the past year was \$616,975.21, — an increase of \$31,594.94 over the preceding year. This means, however, an increase of only 4 cents per pupil in the average membership of the public schools.

*XVI. Table showing the total expenditure for text-books and supplies for the past ten years.*

YEARS.	Text-books and supplies.	Cost per pupil.	YEARS.	Text-books and supplies.	Cost per pupil.
1890-1891, .	\$494,545 27	\$1 60	1895-1896, .	\$522,652 91	\$1 50
1891-1892, .	532,530 73	1 70	1896-1897, .	578,146 59	1 59
1892-1893, .	562,228 00	1 75	1897-1898, .	592,905 76	1 56
1893-1894, .	581,684 57	1 77	1898-1899, .	585,376 27	1 50
1894-1895, .	620,779 10	1 82	1899-1900, .	616,975 21	1 54
Average for ten years, . . . . .					\$1 63

It will be noted that during the first five years of the table the expense per pupil is much larger than during the last five ; also that this expense shows a larger annual increase. This is because there was no separate class for school sundries in the annual return blanks sent out during that period ; consequently some of these sundries found their way into the class of text-books and supplies, while others were not returned at all. The provision of a separate class for school sundries five years ago relieved the foregoing table of its irrelevant matter, and brought the cost of text-books and supplies per pupil closer to the facts in the case. The average of \$1.54 per pupil is certainly a very reasonable one. It could be raised a few cents with profit, for there is a tendency in some quarters to stint the schools in supplies, as well as to cling to text-books when, for reasons of wear or uncleanness, they should be discarded.

There is a stage in the wear of text-books when committees hardly know whether to extort a little longer use for them or not. Is it not so much saved, they inquire, if they are kept in use another year? On the other hand, what about the pupil's interest in his books? What about his wounded æsthetic sense? What about the increasing danger from excessive use? Are there not losses to set over against the money saved? And so in some communities the text-books are held up to reputable standards, while in others they are not. Would it not be wise, before text-books reach the stage when decency protests, to give them to their latest users? Would not committees be more likely to surrender them in good condition to the homes than to the waste basket? The policy is a permissible one, and merits a trial.

*Total Expenditure for School Sundries.* — The total expenditure for school sundries is \$317,046.27, the decrease being \$36,801.07. Previous to 1896 no expenditures for sundries were called for.

*XVII. Table showing the total expenditure for school sundries for the past five years.*

YEARS.	Sundries.	Increase.	YEARS.	Sundries.	Increase.
1895-1896,	\$247,464 40	—	1898-1899,	\$333,847 34	\$1,602 43*
1896-1897,	296,350 78	\$48,886 38	1899-1900,	317,046 27	16,801 07*
1897-1898,	335,449 77	39,098 99			

\* Decrease.

The class of sundries is designed for expenditures that cannot properly be assigned to other classes. If the scope of any of these other classes is increased, as in the case of supervision by school committees for the present report, it leads to a withdrawal of expenditures from the class of sundries. The total expenditure for sundries during the past five years is \$1,530,158.16. A large portion of the expenditure for sundries previous to 1896 — all of it, indeed, that the class of text-books and supplies could not be made to accommodate —

must have been left out of the returns from the towns and cities,—a fact that needs to be thought of in making comparisons of cost between present and past scales of expenditure.

*Contributions to the Total Expenditure for Support from Other Sources than Local Taxation.*—The money expended for the support of schools does not all come from local taxation. The smaller towns in particular receive considerable sums from other sources. These sources are as follows:—

1. Income of the State school fund (for towns whose valuation is under \$3,000,000 each).

2. High school tuition reimbursements by the State (for towns under \$500,000).

3. Salary reimbursements by the State (for towns under \$350,000).

4. State aid to the salaries of district school superintendents (for towns under \$2,500,000).

5. State aid to the salaries of teachers in district superintendencies (for towns under \$2,500,000).

6. State payments for the tuition and transportation of State wards.

7. Tuition payments from other towns.

8. Income of local funds that must be expended for the support of public schools.

9. Voluntary contributions for support.

10. Miscellaneous sources.

The total of the first six items for the year 1899, as shown by the report of the State Auditor, is \$189,700.53. This amount is distributed as follows:—

1. Income of the school fund, \$94,521.12.

2. High school tuition, \$9,432.92.

3. District superintendents, \$38,250.

4. Teachers in district superintendencies, \$25,508.

5. Teachers in towns under \$350,000, \$10,580.19.

6. Tuition and transportation of State wards, \$11,408.30.

The returns from the towns should agree, of course, with the Auditor's statements.

*Local Taxation Cost for the Support of Public Schools.*—The local taxation cost of the public schools for support is obtained by subtracting from the total expenditure all money received from other sources than local taxation.

*XVIII. Table showing the local taxation cost of the public schools for support during the past ten years.*

YEARS.	LOCAL TAXATION COST FOR SUPPORT.			
	As sworn to.	Increase.	In full.	Increase.
1890-1891, .	\$5,707,514 37	\$282,631 72	\$6,490,266 09	\$231,163 43
1891-1892, .	5,578,950 29	128,564 08*	6,412,072 64	78,193 45*
1892-1893, .	6,282,141 20	703,190 91	7,193,134 32	781,061 68
1893-1894, .	6,652,305 59	370,164 39	7,610,671 84	417,537 52
1894-1895, .	6,949,942 96	297,637 37	7,968,463 46	357,791 62
1895-1896, .	7,360,413 38	410,470 42	8,447,204 76	478,741 30
1896-1897, .	7,736,815 48	376,402 10	8,937,403 31	490,198 55
1897-1898, .	8,292,320 12	555,504 64	9,553,807 64	616,404 33
1898-1899, .	8,763,716 03	470,395 91	10,021,503 87	447,696 23
1899-1900, .	10,409,980 16	1,646,264 13	10,409,980 16	388,476 29

\* Decrease.

The taxation cost for support as sworn to by school committees is given for the past ten years, also the taxation cost for support in full. For the first nine years the statutory definition of support did not cover all the items that properly belong to support; for the last year, in accordance with an act of the Legislature changing the definition of support, it covers them all. The extension of the definition lifted the taxation cost of support by \$1,646,264.13, of which \$388,476.29 represents the year's growth and \$1,257,787.84 new items. As the taxation cost sworn to is the basis for the distribution of the income of the school fund, it is important to have it right.

#### COST OF PUBLIC SCHOOL BUILDINGS.

*Total Expenditure for Public School Buildings.* — The total expenditure for public school buildings is \$3,148,757.67, — a decrease of \$454,552.53 from the preceding year.

*XIX. Table showing the total expenditure for public school buildings for the past ten years.*

YEARS.	EXPENDITURE FOR PUBLIC SCHOOL BUILDINGS.				
	New buildings.	Alterations and improvements.	Ordinary repairs.	Total.	Increase.
1890-1891, . .	\$1,026,032 27	\$344,413 11	\$531,127 52	\$1,901,572 90	\$30,955 02
1891-1892, . .	1,916,064 99	252,371 38	478,429 25	2,646,865 62	745,292 72
1892-1893, . .	1,556,039 40	231,306 24	487,956 56	2,275,302 20	371,563 42*
1893-1894, . .	1,432,542 85	274,684 13	460,745 99	2,167,972 97	107,329 23*
1894-1895, . .	1,670,081 60	547,121 64	283,700 61	2,500,903 85	332,930 88
1895-1896, . .	2,400,005 87	505,477 00	284,175 54	3,189,658 41	638,754 56
1896-1897, . .	2,207,981 78	520,215 28	530,148 89	3,258,345 95	68,687 54
1897-1898, . .	2,719,912 01	551,004 48	543,153 81	3,814,070 30	555,724 35
1898-1899, . .	2,742,617 11	291,408 51	569,284 58	3,603,310 20	211,760 10*
1899-1900, . .	2,200,193 16	614,003 80	334,560 71	3,148,757 67	454,552 53*

\* Decrease.

*Total Taxation Cost of Public School Buildings.* — The total taxation cost of public school buildings is \$3,140,415.62. This is less than the total expenditure by just the amount of the contributions to such expenditure from other sources than local taxation, which amount for the past year was \$8,342.65. It needs to be repeated that, while a portion of this taxation cost was provided for in the local tax raised the past year, the subsequent payment of the rest is variously distributed over a series of years. Since it would be a hopeless undertaking to follow up the annual contributions to such subsequent payment through the varied systems of local finance, it is assumed that the money expended on buildings, barring voluntary contributions, is raised by local taxation during the year of its expenditure. Much of it is so raised; and as to the rest, it has to be met by taxation at some time. In the long run the matter evens itself up, for, if the nominal taxation burden is higher than the real for one year, it is correspondingly lower in some other year or years.

### TOTAL COST OF THE PUBLIC SCHOOLS FOR BOTH SUPPORT AND BUILDINGS.

*Total Expenditure and the Total Local Taxation Cost of the Public Schools for both Support and Buildings.* — Bringing together the items that have been given separately under the heads of support and of buildings, we have the grand totals of expenditure and of local taxation cost for all public school purposes.

XX. *Table showing the total expenditure and the total local taxation cost for support and buildings, that is, for all public school purposes, for the past ten years.*

YEARS.	Total expenditure for all school purposes.	Increase.	Total local taxation cost for all school purposes.	Increase.
1890-1891, . . . .	\$8,554,545 51	\$265,483 12	\$8,391,838 99	\$262,118 45
1891-1892, . . . .	9,315,556 57	761,011 06	9,058,938 26	667,099 27
1892-1893, . . . .	9,663,907 49	348,350 92	9,468,436 52	409,498 26
1893-1894, . . . .	9,968,227 28	304,319 79	9,778,644 81	310,208 29
1894-1895, . . . .	10,661,356 22	693,128 94	10,469,367 31	690,722 50
1895-1896, . . . .	11,829,190 61	1,167,834 39	11,636,863 17	1,167,495 86
1896-1897, . . . .	12,390,637 92	561,447 31	12,195,749 26	558,886 09
1897-1898, . . . .	13,653,649 63	1,263,011 71	13,367,877 94	1,172,128 68
1898-1899, . . . .	13,889,838 21	236,188 58	13,624,814 07	256,936 13
1899-1900, . . . .	13,826,243 41	63,594 80*	13,550,395 78	74,418 29*

\* Decrease.

The decrease in the totals of the last year from those of the preceding should be noted. It is due, indeed, to the falling off in the expenditures for buildings, but it would have been less or might not have occurred at all, had there not been increased conservatism in the expenditures for support.

### COST OF THE PUBLIC SCHOOLS PER CHILD.

*Basis of Computation.* — The working out of the cost of the public schools per child is not so simple a matter as it might casually seem. Several questions have to be considered at the threshold of the problem, as, for instance, the following: —

1. What shall be considered the cost of the public schools, — the entire expenditure for them, or only their local taxation burden? Each in its own way may be regarded as their cost.

2. Shall the cost be based on support, or on support and buildings? Here, again, there is a reason for each of these bases.

3. Shall the cost be computed for each child in the total membership, or in the average membership, or in the average attendance, or in the number in the State between five and fifteen years of age? As a matter of fact, it is computed for each child between five and fifteen, because the law so directs. It is also computed for each child in the average membership, because it is this more than the total membership or the average attendance that determines the cost of the schools.

Hence the various determinations of the cost per child, as given in the table on the following page. Of these determinations, the most serviceable single one is the taxation cost of support per child in the average membership. This was \$21.08 ten years ago, if support is assumed for the purpose of comparison to cover the same items then as under the new definition, and \$26.06 last year, — an increase of \$4.98. The increase is swollen, however, by the fact that during the first five years of the period no sundries were returned by the towns, while during the last five years they have been regularly reported, the aggregate amounting to \$1,530,158.26. Doubtless there were sundries during the first five years that crept into the account with text-books and supplies, thus swelling the cost of text-books abnormally; but the most of them were not reported at all. The total expenditure per child for support and buildings reached a maximum three years ago, and has since been diminishing; and the same is true of the total taxation cost per child of support and buildings.

XXI. Table showing the cost of the public schools per child, on each of the bases indicated, for the past ten years.

YEARS.	TAXATION COST OF SUPPORT FOR EACH CHILD —				TAXATION COST OF SUPPORT AND BUILDINGS FOR EACH CHILD —				TOTAL EXPENDITURE FOR ALL SCHOOL PURPOSES FOR EACH CHILD —			
	TAXATION COST OF SUPPORT FOR EACH CHILD —		TAXATION COST OF SUPPORT AND BUILDINGS FOR EACH CHILD —		TAXATION COST OF SUPPORT FOR EACH CHILD —		TAXATION COST OF SUPPORT AND BUILDINGS FOR EACH CHILD —		TOTAL EXPENDITURE FOR ALL SCHOOL PURPOSES FOR EACH CHILD —		TOTAL EXPENDITURE FOR ALL SCHOOL PURPOSES FOR EACH CHILD —	
	In the State between \$ and 15.	Increase.	In the average membership of the public schools.	Increase.	In the State between \$ and 15.	Increase.	In the average membership of the public schools.	Increase.	In the State between \$ and 15.	Increase.	In the average membership of the public schools.	Increase.
1890-1891, .	\$17 25	\$0 34	\$21 08	\$0 46	\$22 29	\$0 32	\$27 25	\$0 47	\$22 72	\$0 34	\$27 77	\$0 48
1891-1892, .	16 74	51*	20 47	61*	23 66	37	28 92	1 67	24 32	1 60	29 74	1 97
1892-1893, .	18 44	1 70	22 42	1 95	24 28	62	29 51	59	24 77	45	30 11	37
1893-1894, .	19 01	57	23 17	75	24 43	15	29 77	26	24 90	13	30 34	23
1894-1895, .	19 49	48	23 32	15	25 61	18	30 64	87	26 07	1 17	31 20	86
1895-1896, .	20 24	75	24 18	86	27 88	2 27	33 31	2 67	28 34	2 27	33 86	2 66
1896-1897, .	20 72	48	24 56	38	28 27	39	33 52	21	28 72	38	34 05	19
1897-1898, .	21 65	93	25 22	66	30 28	2 01	35 29	1 77	30 93	2 21	36 04	1 99
1898-1899, .	22 31	66	25 64	42	30 34	06	34 85	41*	30 92	01*	35 53	51*
1899-1900, .	22 73	42	26 06	42	29 59	75*	33 92	93*	30 19	73*	34 62	91*

\* Decrease.



PERCENTAGE OF STATE VALUATION EXPENDED FOR PUBLIC  
SCHOOL PURPOSES.

*Relations of the School Tax to the Total Tax.*—The total assessed valuation of the State May 1, 1899, was \$2,876,021,222, or 34 per cent. higher than ten years ago; the aggregate of all the municipal taxes based on that assessment was \$45,038,672, or 43 per cent. higher than the aggregate ten years ago. The average rate of municipal taxation is \$1.04 on a thousand higher than ten years ago, but a little lower than one year ago. The school tax for all purposes except buildings is \$3.62 on a thousand, the same as a year ago, although its ratio to the municipal tax is slightly higher, because of a reduction in the latter. Indeed, the tax for school support has remained about stationary for three years. For support and buildings together the school tax for the past three years has been declining. These facts appear with others in the table on the following page. The table shows also how the tax for support and the tax for all purposes except buildings, heretofore at some distance apart because of an antiquated definition of support in the statutes, have now come together as they ought under the operation of the new definition.

XXII. Table showing the relations of the school tax to the municipal tax for ten years.

YEARS.	Total valuation of the State.	Total municipal tax of the State for all purposes.	DOLLARS ON A THOUSAND.				RATIO TO ENTIRE MUNICIPAL TAX OF —		
			Average municipal tax.	Average school tax for support.	AVERAGE SCHOOL TAX.		Average school tax for support.	AVERAGE SCHOOL TAX.	
					Buildings excluded.	Buildings included.		Buildings excluded.	Buildings included.
1890-1891,	\$2,154,134,626	\$31,503,666	\$14 62	\$2 69	\$3 01	\$3 89	.184	.206	.266
1891-1892,	2,245,042,273	32,242,721	14 36	2 56	2 85	4 03	.178	.198	.280
1892-1893,	2,333,025,090	34,465,969	14 77	2 74	3 08	4 05	.185	.208	.274
1893-1894,	2,428,339,029	36,397,292	14 98	2 78	3 13	4 02	.185	.209	.268
1894-1895,	2,471,521,505	36,914,205	14 93	2 85	3 22	4 23	.190	.215	.283
1895-1896,	2,542,348,993	38,084,609	14 98	2 93	3 32	4 57	.195	.221	.305
1896-1897,	2,622,520,278	39,954,339	15 23	2 98	3 40	4 65	.196	.223	.305
1897-1898,	2,702,328,054	41,593,555	15 39	3 10	3 53	4 94	.201	.229	.321
1898-1899,	2,764,242,784	43,792,378	15 84	3 20	3 62	4 92	.202	.229	.311
1899-1900,	2,876,021,222	45,038,672	15 66	3 62	3 62	4 71	.231	.231	.301

## ACADEMIES AND PRIVATE SCHOOLS.

*The Private School Movement for Ten Years.*—The following table gives the private school movement for ten years. It is intended to cover private schools that correspond in grade to public schools, and whose pupils would naturally attend public schools if they were not in private. Private schools for adults or for persons who have gone through the public schools are accordingly ruled out. The distinction between the two classes, however, is sometimes difficult to make. The sharp breaks in the table in passing from 1894 to 1895 are due to stricter definitions of the academy and of the sort of private schools to be returned. The increase in the number of private school pupils over the preceding year is 7,745, — an extraordinary gain, but whether all real or partly nominal it is not clear. It may correct the loss of the previous year. Private school returns, however careful individual schools may be, have not the trustworthiness of public school returns. It is hoped that general acquiescence in the rules of the State register will increase the value of private school reports. The State register is for all schools, public and private, and is furnished without charge just before the opening of the schools in the fall.

XXIII. Table showing the private school movement for the past ten years.

YEARS.	Number of acad- emies (chiefly in- corporated).	Number of acad- emy pupils.	Number of other private schools.	Number of pupils in these other private schools.	Total number of private schools.	Total number of private school pupils.	Total number of public and pri- vate school pu- pils.	Ratio of private school pupils to all the pupils in the State.
1891, . .	93	16,483	378	42,547	471	59,030	436,016	1 to 7.4
1892, . .	94	17,250	399	43,355	493	60,605	443,822	1 to 7.3
1893, . .	94	17,359	350	44,991	444	62,340	454,085	1 to 7.2
1894, . .	99	17,844	359	48,319	458	66,163	466,772	1 to 7.0
1895, . .	59	5,484	341	59,204	400	64,688	477,641	1 to 7.4
1896, . .	52	5,994	359	61,090	411	67,084	491,437	1 to 7.3
1897, . .	53	5,418	365	63,370	418	68,788	508,155	1 to 7.4
1898, . .	55	5,817	363	67,653	418	73,470	529,611	1 to 7.2
1899, . .	56	5,523	368	65,937	424	71,460	543,437	1 to 7.6
1900, . .	53	6,090	366	73,205	419	79,205	554,096	1 to 7.0

## MISCELLANEOUS FUNDS AND REVENUES.

*Various Revenues of Service to the Schools.* — The table on the following page gives by counties the aggregates of certain funds and revenues, some of which are for public schools and some for private. The shares of the towns in the income of the Massachusetts school fund are given among the financial statements that follow the secretary's report. The dog tax constitutes a large percentage of the money which towns may or may not appropriate to the public schools. Section 107, chapter 102 of the Public Statutes, provides that "moneys received by a county treasurer under the provisions of the preceding sections relating to dogs and not paid out for damages shall in the month of January be paid back to the treasurers of the cities and towns in proportion to the amounts received from such cities and towns; *and the money so refunded shall be expended for the support of public libraries or schools.*" If the dog tax is expended on the schools, the people must tax themselves by so much for their libraries; and *vice versa*. Section 5, chapter 347, Acts of 1890, provides that certain payments shall be made from the dog tax for the use and maintenance of the free public library in towns of specified valuations that accept the provisions of the act. For towns to make other dispositions of the dog tax than those directed by law is, of course, indefensible. In one case the money is returned to the people who pay it, — the town of Goshen. To what extent the dog tax is thus diverted from its legal use is not known. There are several towns that do not expend it on their schools; presumably they expend it on their libraries, — the other legal alternative.

XXIV. Table of miscellaneous funds and revenues.

COUNTIES.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.	ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
	Principal.	Income.		Academies.	Private schools.	Principal.	Income.
Barnstable, . . .	\$36,233 00	\$1,760 82	\$961 26	-	-	-	-
Berkshire, . . .	17,474 00	881 98	1,985 37	-	\$16,450 00	-	-
Bristol, . . .	235,476 00	13,697 72	9,555 30	\$14,811 00	18,125 00	\$15,000 00	\$3,808 60
Dukes, . . .	-	-	579 39	-	-	-	-
Essex, . . .	182,876 59	8,958 59	4,485 67	36,923 75	52,940 00	325,498 82	18,074 75
Franklin, . . .	27,628 37	1,227 97	1,754 54	82,393 07	240 00	78,222 00	4,114 42
Hampden, . . .	179,465 86	6,803 13	2,210 72	14,115 00	16,883 75	210,000 00	9,642 00
Hampshire, . . .	42,441 39	1,720 53	3,861 53	16,250 00	24,890 00	601,432 00	28,536 49
Middlesex, . . .	71,865 69	8,731 15	7,955 45	121,700 00	114,655 00	66,049 11	3,084 54
Nantucket, . . .	-	-	324 60	-	-	37,000 00	2,000 00
Norfolk, . . .	21,980 59	1,699 67	6,524 92	25,237 50	33,235 00	498,360 00	19,147 79
Plymouth, . . .	27,432 00	1,396 82	5,852 54	5,631 00	5,660 00	196,754 40	7,348 20
Suffolk, . . .	119,375 00	4,458 34	17,685 30	12,700 00	200,826 12	267,000 00	13,000 00
Worcester, . . .	325,578 07	10,709 89	60,760 24	116,848 00	47,031 00	271,000 00	14,630 00
Totals, . . .	\$1,287,826 56	\$62,046 61	\$124,496 83	\$446,609 32	\$530,935 87	\$2,566,316 33	\$123,386 79

THE STATE'S CONTRIBUTIONS TO THE SUPPORT OF PUBLIC SCHOOLS.

*Four Forms or Methods of State Aid to the Public Schools of the Towns.* — The State in four ways is directly aiding certain towns to maintain their public schools : —

1. By means of the income of the school fund.
2. By means of its reimbursement of high school tuition to certain towns.
3. By means of its reimbursement of advances in teachers' salaries to certain towns.
4. By means of its encouragement of superintendency districts.

*The Theory of State Aid in the Foregoing Cases.* — The State is steadily strengthening its demands upon the towns to furnish adequate schooling to the children. It does so for the children's sake as well as its own. It does so without reference to the ability of the towns to comply with its demands. It consequently asks for more than some of the towns can give. Either the State should reduce its demands, or help the towns to rise to them. Lowering its standards means sacrificing the children ; it runs counter to the spirit of the times, particularly to the people's conviction that in education the avenues to the highest opportunities should be kept open to the humblest child. There is no likelihood — it would be a calamity if it occurred — of the State's receding from its demands. The alternative, then, is some measure of help to overburdened towns. Strictly speaking, the State's so-called help to the towns is a recognition of its own obligation to meet the expense of such requirements as it makes beyond the ability of the towns to satisfy. Such help is not a gift, but the discharge of a debt ; not charity, but justice. For every dollar of such help by the State there is value received. The theory presupposes that the towns shall pay for their own schools up to the limits of a reasonable, if not of a strenuous effort. This is essential that their self-reliance shall not be undermined. But the State's duty to carry the burden of the excess due to its legislation rests on the solidest of foundations, and should be faithfully discharged, whatever its method of raising the money.

## THE MASSACHUSETTS SCHOOL FUND.

*The Recent Increase in the Income.*—The income of the fund is now practically, by operation of law (section 3, chapter 408, Acts of 1893, and chapter 90, Resolves of 1894), very nearly that of \$10,000,000. If the maximum principal of the fund is made \$10,000,000, and the distribution of its income is properly readjusted, it can be made to go a large way, perhaps the entire way, towards enabling the State to discharge its school duties to the towns. Any modest supplement that might be necessary should come directly from the State treasury. But, should it appear after all that a much larger sum is needed to discharge the State's school obligations to the towns, then a State school tax, that is, a State tax designed to meet that excess of local school burdens above local ability which is due to the State school laws, is a perfectly logical and defensible way of providing the money. It is a method recognized in fact by nearly every State in the Union. In Massachusetts it is simply a question of expediency whether to resort to such a tax or not. With the school fund practically doubled in size, it is probably not necessary to do so. At any rate, fair trial should first be made of the State's recently and suddenly enlarged school resources.

## STATE REIMBURSEMENT OF HIGH SCHOOL TUITION.

*Growth of the Movement.*—The law authorizing the State to reimburse towns whose valuation is under \$500,000 for their payments of high school tuition in other towns, provided they have no high school at home, went into effect April 4, 1895. Expenditures under the law for the past six years have been made as follows :—

PERIOD COVERED.	Number of towns.	Number of tuition pupils.	High schools approved.	Average tuition.	Amount reimbursed.
April and June, 1895, . . .	28	112	29	\$23 42	\$840 41
September, 1895, to June, 1896,	38	143	29	31 05	3,873 05
September, 1896, to June, 1897,	43	219	33	31 72	6,121 72
September, 1897, to June, 1898,	51	255	39	32 61	7,309 18
September, 1898, to June, 1899,	59	298	41	34 29	9,436 67
September, 1899, to June, 1900,	62	347	42	37 80	11,819 53

The foregoing statement shows a steadily increasing appreciation of the opportunities for high school tuition guaranteed by the State.

*Upward Trend of the Tuition Rates.* — The increase in the average tuition rate merits notice. It is due in part to the lifting of low rates, such as \$10, \$15 and \$18, — a proper thing to do; in part to the bringing of the higher rates in some of the more expensive schools a little nearer to the local cost per pupil, — a policy open to question; and in part, it is to be feared, to a disposition to raise the tuition with more reference to the State's ability to pay it than to the high school privileges offered for it, — a disposition, if it exists, that is reprehensible.

The highest tuition rate is \$100 for the Springfield high school, which cannot be far from the cost per pupil for the superb accommodations and generous privileges offered there. The Springfield school committee, however, of its own motion, has wisely reduced the rate to \$75. A few tuition pupils, as a matter of fact, can be received by any large high school, and generally by a small one, with hardly a perceptible effect upon the local scale of expenditure, — the schools would cost as much without them as with them; so that the tuition received, though less than the local cost per pupil, is largely clear gain. Thus self-interest and a certain comity towards towns of the neighborhood unite in suggesting modest tuition rates. It should not be overlooked that some of these towns are paying



high school tuition without State reimbursement therefor. The Board of Education hopes that school committees will see the advantage of a conservative policy. The average tuition rate of the approved high schools is determined by dividing the sum of all the rates by the number of schools. The average tuition expenditure per pupil is determined by dividing the total expenditure by the whole number of pupils. This average expenditure per pupil will vary from the average tuition rate, because it takes account of two factors not recognized by the latter, — the number of pupils paid for and the length of time, whether a full year or only a part of it, for which payments are made. Putting the two averages side by side for the past five years, the showing is as follows : —

PERIOD COVERED.	Average tuition rate.	Average tuition expenditure per pupil.	Excess of rate above expenditure.
September, 1895, to June, 1896, .	\$31 05	\$27 06	\$3 99
September, 1896, to June, 1897, .	31 72	27 91	3 81
September, 1897, to June, 1898, .	32 61	28 66	3 95
September, 1898, to June, 1899, .	34 29	31 67	2 62
September, 1899, to June, 1900, .	37 80	34 06	3 74

The increase in the rate for five years has been \$6.75; in the average expenditure per pupil, \$7.

*Details of Expenditure.* — The following table gives details of expenditure under the law : —

XXV. Table showing high school tuition reimbursements under chapter 496, Acts of 1898, section 3.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Alford, . . .	6	Great Barrington (Searles).	\$40 00	\$240 00
Becket, . . .	2	Pittsfield, . . .	36 00	61 20
Becket, . . .	2	Chester, . . .	40 00	80 00
Becket, . . .	1	Westfield, . . .	50 00	50 00

*XXV. High school tuition reimbursements, etc. — Continued.*

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Berkley, . .	6	Taunton, . . .	\$50 00	\$275 00
Berlin, . .	16	Clinton, . . .	40 00	598 00
Berlin, . .	7	Hudson, . . .	30 00	210 00
Blandford,* .	2	Westfield, . . .	50 00	85 00
Blandford, . .	1	Westfield, . . .	50 00	50 00
Blandford, . .	1	Greenfield, . . .	30 00	30 00
Bolton, . .	2	Clinton, . . .	40 00	52 00
Boxborough, .	7	Concord, . . .	48 00	320 00
Boxborough, .	1	Acton, . . .	30 00	30 00
Carlisle, . .	1	Concord, . . .	48 00	48 00
Charlemont, .	1	North Adams, . .	30 00	30 00
Chilmark, . .	2	Tisbury (Vineyard Haven).	36 00	42 00
Clarksburg, .	8	North Adams, . .	30 00	220 00
Cummington, .	1	Northampton, . .	45 00	45 00
Cummington, .	1	Ashfield, . . .	18 00	18 00
Dana, . . .	8	New Salem, . . .	25 00	166 66
Eastham, . .	5	Orleans, . . .	32 00	154 00
E. Longmeadow,	8	Springfield, . . .	100 00	780 00
Egremont, . .	25	Great Barrington (Searles).	40 00	822 50
Erving, . .	13	Orange, . . .	25 00	257 25
Erving, . .	10	Greenfield, . . .	30 00	300 00
Erving, . .	3	Athol, . . .	36 00	91 35
Florida, . .	1	North Adams, . .	30 00	30 00
Gill, . . .	15	Montague (Turner's Falls).	30 00	450 00
Gill, . . .	9	Barnardston (Powers Institute).	21 00	161 00
Goshen, . .	2	Ashfield, . . .	18 00	36 00

*XXV. High school tuition reimbursements, etc. — Continued.*

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Granville, . .	2	Westfield, . . .	\$50 00	\$100 00
Greenwich, . .	2	Athol, . . . . .	36 00	52 00
Greenwich, . .	4	Hardwick, . . .	15 00	60 00
Halifax, . .	1	Brockton, . . .	60 00	60 00
Halifax, . .	1	Rockland, . . .	36 00	36 00
Hancock, . .	1	Pittsfield, . . .	36 00	36 00
Hawley, . .	1	Ashfield, . . .	18 00	18 00
Hawley, . .	1	Concord, . . .	48 00	48 00
Hawley, . .	1	Greenfield, . . .	30 00	30 00
Heath, . . .	2	Charlemont, . . .	30 00	50 00
Lakeville, . .	12	Middleborough, . .	40 00	421 00
Lanesborough, .	2	Adams, . . . . .	15 00	10 00
Leverett, . .	5	Amherst, . . . . .	34 50	172 50
Leverett, . .	7	Montague (Centre), .	30 00	190 00
Leyden, . . .	3	Greenfield, . . .	30 00	90 00
Monroe, . . .	1	North Adams, . . .	30 00	25 10
Monterey, . .	9	Great Barrington (Searles).	40 00	317 50
Montgomery, .	2	Westfield, . . . . .	50 00	100 00
New Braintree, .	1	Ware, . . . . .	40 00	40 00
New Braintree, .	1	North Brookfield, . .	40 00	40 00
North Reading, .	9	Lowell, . . . . .	60 00	520 00
Otis, . . . .	1	West Springfield, . .	40 00	40 00
Otis, . . . .	1	Westfield, . . . . .	50 00	50 00
Otis, . . . .	2	Lee, . . . . .	30 00	50 00
Paxton, . . .	2	Worcester (English), .	60 00	120 00
Paxton, . . .	2	Worcester (Classical), .	60 00	120 00
Pelham, . . .	2	Amherst, . . . . .	34 50	69 00

XXV. *High school tuition reimbursements, etc.* — Continued.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Pelham, . . .	1	New Salem, . . .	\$25 00	\$12 50
Phillipston, . . .	3	Athol, . . . . .	36 00	108 00
Plainfield, . . .	6	Ashfield, . . . . .	18 00	78 00
Plympton, . . .	3	Kingston, . . . . .	30 00	60 00
Prescott, . . .	2	Athol, . . . . .	36 00	30 00
Prescott, . . .	3	New Salem, . . . . .	25 00	49 99
Richmond, . . .	4	Pittsfield, . . . . .	36 00	144 00
Rochester, . . .	1	Fall River, . . . . .	50 00	50 00
Rochester, . . .	1	Wareham, . . . . .	30 00	30 00
Rowe, . . . . .	3	Charlemont, . . . . .	30 00	90 00
Royalston, . . .	2	Winchendon, . . . . .	25 00	50 00
Royalston, . . .	3	Athol, . . . . .	36 00	108 00
Russell, . . . . .	2	Westfield, . . . . .	50 00	100 00
Sandisfield, . . .	1	Lee, . . . . .	30 00	30 00
Sandisfield, . . .	1	Great Barrington (Searles).	40 00	40 00
Shutesbury, . . .	2	Montague (Centre), . .	30 00	60 00
Southampton, . .	5	Easthampton, . . . . .	35 00	175 00
Southampton, . .	1	Westfield, . . . . .	50 00	18 75
Southwick, . . .	3	Westfield, . . . . .	50 00	150 00
Sunderland, . . .	4	Greenfield, . . . . .	30 00	120 00
Truro, . . . . .	4	Provincetown, . . . . .	35 00	85 00
Truro, . . . . .	1	Orleans, . . . . .	32 00	22 40
Tyngsborough, . .	8	Lowell, . . . . .	60 00	480 00
Tyringham, . . .	1	Lee, . . . . .	30 00	30 00
Warwick, . . . . .	4	Orange, . . . . .	25 00	81 08
Washington, . . .	1	Westfield, . . . . .	50 00	50 00
Wendell, . . . . .	3	Orange, . . . . .	25 00	50 75

XXV. *High school tuition reimbursements, etc.* — Concluded.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Wendell, . .	1	Montague (Centre), .	\$30 00	\$30 00
Wendell, . .	1	New Salem, . . .	25 00	25 00
Westhampton, .	2	Northampton, . .	45 00	90 00
Westhampton, .	1	Easthampton, . .	35 00	35 00
W. Stockbridge, .	14	Great Barrington (Searles).	40 00	425 00
West Tisbury, .	2	Tisbury (Vineyard Haven).	36 00	70 00
Whately, . .	4	Northampton, . .	45 00	150 00
Whately, . .	4	Greenfield, . . .	30 00	93 00
62 towns, .	347	42 schools, . .	\$37 80	\$11,819 53

*Comments on Table XXV.* — There are 85 towns whose valuation by the returns of May 1, 1899, is under \$500,000 each. Sixty-four of these towns, including Boylston and Oakham, whose certificates have not yet been received or approved, have availed themselves of the benefit of the law. Six have high schools of their own. The number of towns, therefore, without a local high school and without tuition pupils in other high schools, is 15, with a population, by the census of 1895, of 5,665, which is about one fourth of one per cent. of the population of the State. These towns are as follows: —

TOWNS.	Population.	Whole number in school.	TOWNS.	Population.	Whole number in school.
Chesterfield, .	589	105	Mt. Washington,	136	30
Dunstable, . .	400	64	New Ashford, .	116	25
Gay Head, . .	169	47	Pern, . . .	305	44
Gosnold, . .	140	22	Savoy, . . .	504	104
Hampden, . .	743	123	Tolland, . .	309	62
Holland, . .	199	22	Wales, . . .	783	158
Mashpee, . .	330	80	Windsor, . .	556	96
Middlefield, .	386	146	Total, . .	5,665	1,128

Of the 42 high schools approved for State reimbursement purposes, 32 have 3 or more teachers each, while 5 of them have more than 20 teachers each. One of them, the Worcester English high school, has some 40 teachers, — the largest high school teaching corps in the State. These 32 schools, with few exceptions, have good buildings, well-equipped laboratories, and strong courses of study to choose from. Of the 347 tuition pupils, 298, or 86 per cent., are in these 32 schools.

*Approval of Small High Schools.* — In the approved list there are 10 schools with only 2 teachers each. These schools have accommodations that range from satisfactory or fair to poor. Laboratory facilities are usually meagre or entirely lacking. Their courses of study reflect their limitations. Of the 347 tuition pupils, 45, or 14 per cent., attend these 10 schools, of whom 26 are in the Ashfield and New Salem schools. The following statement gives some facts about this group of small high schools: —

HIGH SCHOOLS.	Population.	Number of pupils in the high school.	Salary of principal.	Tuition rate.
Acton, . . . . .	1,978	58	\$1,000	\$30
Ashfield, . . . . .	1,013	41	700	18
Charlemont, . . . . .	1,041	37	400	—
Chester, . . . . .	1,429	—	—	40
Hardwick, . . . . .	2,655	23	800	15
Kingston, . . . . .	1,746	61	1,000	30
New Salem, . . . . .	869	39	650	25
Orleans, . . . . .	1,198	51	1,000	32
Wareham, . . . . .	3,367	67	1,000	30
Tisbury, . . . . .	1,002	25	630	36

In the case of the Chester high school, a bill was presented by Chester to Becket for tuition therein and paid by Becket, both committees believing, not without reason, that the school

had been approved for purposes of State reimbursement. Approval was accordingly given, so as to sanction their action, but has since been suspended. It is understood that plans are maturing for improving the school, and that its relatively high tuition rate will be reduced.

The tuition certificates of towns sending pupils to the high schools of Rutland and West Boylston have either not come in or are not in shape for approval. West Boylston employs 3 teachers for 65 pupils, paying the principal \$1,200 and charging \$40 for tuition. Rutland employs 2 teachers for 25 pupils, pays the principal \$416 for that part of his time given to the high school, and furnishes excellent school accommodations, for which the tuition is modestly put at \$16.50. The tuition rate of the Tisbury high school has been reduced from \$54 to \$36.

These small high schools are approved in order to extend the benefits of high school instruction. They cannot be regarded as satisfactory in all respects, but they are the best available for certain towns. Moreover, if their teachers are well chosen, they can do, on the whole, good work, notwithstanding their lack of facilities for scientific instruction; for, at the last, it is not so much a question of external conditions as of the fitness of teachers and the determination of pupils whether a school is to be considered good or not.

*Temptations of Small Approved High Schools.* — There are two temptations besetting that small high school whose development depends somewhat upon tuition that is ultimately paid by the State. One is to admit immature and unqualified pupils from outside to swell its tuition membership; the other is to charge too high a tuition rate. Yielding to the former tends to lower the standard of scholarship in outside towns, injures the high school that lowers its own standards, and bodes no good to the tuition pupils themselves. To do all this and then to charge more for such doing than numerous schools charge for much superior doing is not just. Fortunately, this is a tendency that several school committees have already begun to check. The Board will take special pains to have these smaller schools inspected from time to time. The better they become and the closer they get to those sections

of the State where children have the greatest difficulty in taking advantage of their legal right to free high school tuition, the readier the Board to approve them in spite of certain shortcomings inevitable to the conditions under which they exist. They represent at all events a greater measure of self-sacrifice for a worthy purpose than the grander schools of the cities.

#### STATE REIMBURSEMENT OF ADVANCES IN TEACHERS' SALARIES.

*Growth of the Movement.* — The following statement summarizes certain facts in connection with the workings of the law authorizing additions by the State to the salaries of teachers in small towns : —

YEARS.	Number of towns.	Number of teachers.	Amount reimbursed.	Increase.
1896-1897, . . .	23	127	\$4,117 84	—
1897-1898, . . .	45	220	7,833 19	\$3,715 35
1898-1899, . . .	49	282	10,532 19	2,699 00
1899-1900, . . .	47	279	11,504 47	972 28

*Details of Expenditure.* — The following table gives the cost of executing the law for the school year beginning in September, 1899, and ending in June or July, 1900 : —

#### XXVI. Table showing salary reimbursements on account of public school teachers in small towns.

TOWNS.	Number of different teachers affected.	To what date.	Amounts.
Alford, . . . . .	3	June —, 1900,	\$76 00
Boxborough, . . . . .	4	June —, 1900,	250 00
Carlisle, . . . . .	2	June —, 1900,	68 16
Charlemont, . . . . .	12	July —, 1900,	594 60
Chesterfield, . . . . .	5	June 30, 1900,	202 80



XXVI. *Table showing salary reimbursements, etc. — Continued.*

TOWNS.	Number of different teachers affected.	To what date.	Amounts.
Chilmark, . . . . .	2	June 23, 1900,	\$128 00
Clarksburg, . . . . .	6	June 29, 1900,	340 00
Cummington, . . . . .	7	July —, 1900,	294 00
Dana, . . . . .	5	June 22, 1900,	300 00
Dunstable, . . . . .	2	June 22, 1900,	90 00
Eastham, . . . . .	3	July 8, 1900,	159 00
Florida, . . . . .	8	July —, 1900,	328 00
Gay Head, . . . . .	1	June 15, 1900,	72 00
Goshen, . . . . .	4	June 29, 1900,	196 00
Greenwich, . . . . .	3	June —, 1900,	58 44
Hawley, . . . . .	11	July 6, 1900,	384 00
Heath, . . . . .	9	July 1, 1900,	335 08
Holland, . . . . .	1	June 23, 1900,	72 00
Leverett, . . . . .	5	June 22, 1900,	272 00
Leyden, . . . . .	9	July 3, 1900,	217 43
Mashpee, . . . . .	1	June 15, 1900,	64 00
Middlefield, . . . . .	9	July 11, 1900,	318 00
Monroe, . . . . .	7	July 15, 1900,	268 00
Monterey, . . . . .	5	June 29, 1900,	188 50
Montgomery, . . . . .	8	July 10, 1900,	272 00
Mount Washington, . . . . .	2	July —, 1900,	136 00
New Salem, . . . . .	10	Sept. 1, 1900,	298 50
Otis, . . . . .	3	June 30, 1900,	90 00
Pelham, . . . . .	5	June 19, 1900,	192 00
Peru, . . . . .	5	Sept. 1, 1900,	192 00
Phillipston, . . . . .	3	June —, 1900,	142 50

## XXVI. Table showing salary reimbursements, etc. — Concluded.

TOWNS.	Number of different teachers affected.	To what date.	Amounts.
Plainfield, . . . . .	7	July 6, 1900,	\$289 50
Plympton, . . . . .	1	June -, 1900,	72 00
Prescott, . . . . .	8	June 22, 1900,	330 00
Richmond, . . . . .	7	June 29, 1900,	304 00
Rowe, . . . . .	6	July -, 1900,	248 00
Sandisfield, . . . . .	13	June 30, 1900,	454 50
Savoy, . . . . .	10	July 13, 1900,	342 00
Shutesbury, . . . . .	6	June 29, 1900,	223 56
Tolland, . . . . .	9	June 27, 1900,	236 00
Tyringham, . . . . .	2	June 29, 1900,	140 00
Wales, . . . . .	8	June 15, 1900,	408 00
Warwick, . . . . .	4	June -, 1900,	206 90
Washington, . . . . .	10	July 20, 1900,	430 00
Wendell, . . . . .	6	July 3, 1900,	250 00
Westhampton, . . . . .	9	June 30, 1900,	282 00
Windsor, . . . . .	7	July 6, 1900,	446 00
Worthington, . . . . .	11	June 22, 1900,	435 00
48 towns, . . . . .	284	- -	\$11,696 47

*Increased Strictness in giving Approval to the Increase in Teachers' Salaries.* — While, on the whole, the advances made by school committees in the salaries of teachers under the law have merited approval, and have heretofore received it without question, still, the experience gained in studying the working of the law has made it desirable for the Board to exercise a closer supervision of the qualifications of teachers before approving an increase in their pay at State expense. The purpose of the law is clear enough, but it is a purpose easily

thwarted. A little inexperience in distinguishing a good teacher from a poor one, a little pressure for an increase of pay from one not entitled to it, a little indifference or perfunctoriness of procedure at a critical moment, and the law's intent comes to naught. Accordingly, the following circular, which explains itself, was sent to the interested towns in July, 1900: —

STATE HOUSE, BOSTON, July 2, 1900.

CIRCULAR OF INFORMATION. — STATE REIMBURSEMENT OF CERTAIN EXPENDITURES FOR THE SALARIES OF PUBLIC SCHOOL TEACHERS IN SMALL TOWNS.

*Recent Legislation.*

Chapter 408, Acts of 1896, provides as follows: —

With the approval of the state board of education there may be paid from the income of the school fund, to any town having a valuation of less than two hundred and fifty thousand dollars, a sum not exceeding two dollars per week for the actual time of service of each teacher, approved by the school committee of said town after special examination as to exceptional ability, employed in the public schools of said town, which sum shall be added to the salary of such teacher: *provided*, that the amount paid by the town toward the salary of such teacher shall not be less than the average salary paid by said town to teachers in the same grade of school for the three years next preceding, and that by said addition no teacher shall receive more than ten dollars per week.

This act was approved May 16, 1896, and became operative June 16, 1896.

Chapter 498, Acts of 1897, amended the foregoing act by substituting three hundred and fifty thousand dollars for two hundred and fifty thousand dollars, leaving the act in other respects unchanged. This amendment took effect upon its passage. It became operative, therefore, on the date of its approval, June 10, 1897.

*Towns entitled to the Benefits of the Law.*

For the year beginning with September, 1900, and ending in June, 1901, the towns entitled to the benefits of the law will be those whose valuation is under three hundred and fifty thousand dollars by the assessment of May 1, 1900. At the date of this circular the valuations of the towns for May 1, 1900, have not all been received by the Secretary of the Commonwealth. The following list of towns entitled to the benefits of the law the coming year is, therefore, a provisional

one, and should be corrected, if correction is needed, to conform to the full valuation returns under the assessment of May 1, 1900:—

*Barnstable County.*—Eastham, Mashpee, Truro.

*Berkshire County.*—Alford, Clarksburg, Florida, Hancock, Monterey, Mount Washington, New Ashford, Otis, Peru, Richmond, Sandisfield, Savoy, Tyringham, Washington, Windsor.

*Dukes County.*—Chilmark, Gay Head, Gosnold.

*Franklin County.*—Charlemont, Hawley, Heath, Leverett, Leyden, Monroe, New Salem, Rowe, Shutesbury, Warwick, Wendell.

*Hampden County.*—Holland, Montgomery, Tolland, Wales.

*Hampshire County.*—Chesterfield, Cummington, Goshen, Greenwich, Middlefield, Pelham, Plainfield, Prescott, Westhampton, Worthington.

*Middlesex County.*—Boxborough, Carlisle, Dunstable.

*Plymouth County.*—Halifax, Plympton.

*Worcester County.*—Dana, Oakham, Paxton, Phillipston.

### *Special Examination as to Exceptional Ability.*

The nature and methods of this examination are left by law to the control and judgment of the school committee. Its purpose is to secure superior teachers for the schools. It should cover, therefore, the scholarship, the culture and the moral character of the candidate, as well as his fitness to teach as demonstrated by successful experience.

### *Approval by the State Board of Education.*

The attention of the school committees of towns coming within the operation of the aforesaid law is called to the *conditions under which the State Board of Education will hereafter grant its approval* to the payment of additional compensation by the State. These conditions are as follows:—

1. Each school committee will promptly report to the secretary of the State Board of Education the name of every new teacher (that is, of every teacher who has not heretofore been approved by the Board) to whom it has decided, provided the State Board of Education approves the committee's action, to pay an additional sum per week in accordance with the provisions of the law, and also the date at which such payment should begin.

2. Upon receipt of such notification, or as soon thereafter as practicable, the State Board of Education will determine, through its agents or otherwise, whether to approve the payment by the State of the additional compensation proposed, and will communicate its decision to the school committee.

3. After such approval by the State Board of Education, the school committee may pay such teacher from the date specified, in anticipation of State reimbursement under the law.

4. At the expiration of the school year let the usual certificate of expenditures in anticipation of State reimbursement be sent to the office of the secretary of the Board, *accompanied by receipts from the teachers as vouchers that they have been paid.*

5. Suitable blanks will be furnished by the State for the purposes mentioned.

6. As to the cases in which approval has already been granted, the State Board of Education reserves the right to withdraw such approval, after due notice, in case teachers clearly fail to justify it.

#### *Certificate of Expenditures.*

A form for a certificate of expenditures has been prepared for the convenience of school committees and of the State Board of Education, and will be furnished by the secretary of the State Board of Education, upon application therefor. A copy of this form is enclosed with the present circular. This certificate must be properly filled out and sworn to *after the expenditures have been made* for which reimbursement is claimed. School committees in making out certificates will observe the following directions: —

1. The valuation of the town is to be determined by the assessment of May 1 preceding the school year for which the certificate is made out.

2. In determining the average salary for the three years next preceding, the State's contribution to the salary, under chapter 408, Acts of 1896, must be excluded. The average wanted is not what the State and the town acting conjointly under this law may have paid, but what the town itself without such aid has paid.

3. Let the certificate cover the entire amount which the town has expended under the law for the full year that precedes the summer vacation (usually from September to June, inclusive), and for which it may legally claim State reimbursement.

4. Send the certificate to the secretary of the State Board of Education, State House, Boston, within thirty days after the full or final expenditures under the law for the year have been made. It is desired that the certificate shall be sent in on or before the first day of September.

5. If the certificate is approved by the State Board of Education, the amount allowed under it will be payable on or about the first day of November.

*General Suggestions.*

It cannot be too strongly emphasized that the object of the State under the law is to co-operate with certain towns in securing a higher order of teaching ability for their public schools, and in retaining such superior ability for a longer time. The benefits of the law cannot, therefore, be honorably claimed unless its spirit is faithfully met.

The superintendent of schools in towns that have such an officer can render valuable service in securing the higher grade of teachers desired.

The principals of the State normal schools will gladly suggest the names of promising persons. Such suggestions can be made with increasing confidence by the principals, as the practice departments of their respective normal schools are extended and the fitness of normal school pupils to teach, as shown by their experience in such practice schools, is more fully demonstrated.

The agents of the State Board of Education have been requested to keep the Board informed of the practical workings of the law, with special reference to the question whether the schools show progress under its operation.

FRANK A. HILL,  
*Secretary.*

The form of notice prescribed for the school committee to use in accordance with the foregoing circular is the following: —

NOTICE TO THE STATE BOARD OF EDUCATION OF THE APPOINTMENT  
OF TEACHERS OF EXCEPTIONAL ABILITY UNDER THE PROVISIONS  
OF CHAPTER 408, ACTS OF 1896.

N.B. — A separate notice for each new teacher should be made out as soon as practicable and sent to the Secretary of the State Board of Education, State House, Boston. See circular of information, dated July 2, 1900, for detailed directions.

To the State Board of Education. TOWN OF , 19 .

This is to certify that the school committee of has specially examined \* and, having found to be a teacher of exceptional ability, has decided, should the State Board of Education approve its action, to increase compensation in accordance with the provisions of chapter 408, Acts of 1896, said increase to begin .

For the School Committee,

*Secretary.*

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\* Give the teacher's name and the school where the teacher may be seen.

, 19 .

*To the State Board of Education.*

I hereby recommend that the action of the school committee as stated in the foregoing certificate be approved.

*Agent of the State Board of Education.*

The authority of the school committee to increase the teacher's salary in anticipation of State reimbursement is completed and assured by the Board's approval, as conveyed in the following notice:—

STATE HOUSE, BOSTON, 19 .

*To the Secretary of the School Committee of .*

The State Board of Education acknowledges the receipt of the certificate of the school committee of , dated and bearing witness to the following facts:—

1. That said school committee has specially examined and found to be a teacher of exceptional ability.

2. That said school committee has decided to increase the compensation of said in accordance with the provisions of chapter 408, Acts of 1896, said increase to begin , provided its action in so doing is approved by the State Board of Education.

The State Board of Education hereby approves the action thus certified to by said school committee.

*Secretary of the Board.*

Since Sept. 1, 1900, the agents of the Board have personally inspected and approved the work of 40 teachers, in accordance with the new policy. In a few cases they have felt compelled to withhold approval. They have also visited many of the teachers approved in the past. In two or three cases approval once given has been withdrawn. While the law limits its benefits to teachers of "exceptional ability," it recognizes as maximum pay for such exceptional ability but \$10 a week, or \$320 for the legal school year,—a compensation that does not usually command, or, if it commands, does not usually retain, extraordinary qualifications. Still, the pay is larger than it used to be; country conditions often make it fully as desirable as twice the sum in a city; and, as a matter of fact, it is really giving the favored towns a higher order of service.

## DISTRICT SUPERVISION.

*Development of District Supervision.* — The system of district supervision in Massachusetts, that is, of the supervision of the public schools in a group of towns by a single superintendent, was established by chapter 471, Acts of 1888. Previous to that date there were several instances of two towns employing the same person as superintendent, but, as there was no aid from the State, only towns of considerable means could resort to the plan. It was, therefore, beyond the reach of most of the towns of the State. Under the legislation of 1888 the smaller towns were encouraged to establish superintendency districts. To guard against the employment of inferior persons, the minimum salary of the district superintendent was fixed at \$1,250. Of this the State paid \$500; it also gave in addition \$500 towards the salaries of teachers in the district. Amendments of the legislation of 1888 were made by chapters 379, Acts of 1890, and 272, Acts of 1891, the principal change being an increase of the superintendent's salary to \$1,500, the State contributing \$750 thereof. Chapter 466, Acts of 1898, codified the previous laws and extended their scope somewhat. It transferred the approval of the certificates on which the State payments are made from the State Auditor to the State Board of Education. In 1900 an act was adopted by the Legislature making the employment of superintendents of schools the universal and permanent policy of the State after July 1, 1902.

*The Method of Educational Progress.* — The history of supervision in Massachusetts illustrates the way in which many of the State's great educational steps have been taken. At first the towns feel their way to a new method of supervising the schools by employing a paid expert for the service. They do this without any special sanction from the Legislature, but out of that reserve of authority which they assume to have in the general authority granted them by the State to manage their schools. The method proves successful, whereupon the Legislature formally authorizes the towns to adopt it if they choose to do so. Under this formal authority other towns take similar action. Meanwhile, there is an undercurrent of conviction that the State ought not to force the plan upon towns, — certainly not so long as there is any widespread failure on their part



to utilize it. In time, however, a large proportion of the State is won over to the plan. Then the people conclude that it has been sufficiently tested, and that the good of the schools requires it to be made mandatory and universal. It is a slow process; it has its disadvantages. But there is one superlative merit, — a good principle worked out and fixed in this way rests on that solidest of foundations, the experience and intelligence of the people. The Massachusetts system of district supervision is the most successful yet devised in the United States for reaching the small towns; and the act of the Legislature of 1900, that, in addition to its mandate that every town shall employ a superintendent of schools, makes it the duty of every eligible town to provide for this kind of supervision, is the most promising school legislation of recent years. Energies may now be more fully directed to improving the quality of the supervision.

*The Supervision Law of 1900.* — The text of the supervision law of 1900 is as follows: —

[CHAPTER 248.]

AN ACT RELATIVE TO THE EMPLOYMENT OF SUPERINTENDENTS OF  
SCHOOLS BY CITIES AND TOWNS.

*Be it enacted, etc., as follows:*

SECTION 1. The school committee of each town or city in the Commonwealth may, and after July first in the year nineteen hundred and two shall, employ at the expense of the town or city a superintendent of schools, who under the direction and control of the committee shall have the care and supervision of the public schools: *provided*, that nothing herein contained shall be construed to dissolve existing unions for the employment of a superintendent, or to prevent towns from uniting for such employment under the provisions of sections forty-four and forty-five of chapter forty-four of the Public Statutes, or of sections six and seven of chapter four hundred and sixty-six of the acts of the year eighteen hundred and ninety-eight.

SECTION 2. The school committees of towns the valuation of which is less than two million five hundred thousand dollars may, and after July first in the year nineteen hundred and two shall, form unions under the provisions of chapter four hundred and sixty-six of the acts of the year eighteen hundred and ninety-eight.

SECTION 3. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed. [*Approved April 18, 1900.*]

It will be noted from the foregoing statute that it is no longer necessary for the towns to consider in town meeting questions relative to the formation or the dissolution of superintendency unions. Whatever authority they exercised in this way under earlier legislation has been transferred to the school committee; and very properly, now that the State has decided to require all towns, through unions or otherwise, to employ superintendents of schools. The question of expediency having thus been settled by the State itself, only details of procedure are left to be acted upon. Obviously these can be better handled in school committee than in town meeting. In this substitution of State authority for that of the town, as well as in the very arguments used for and against the State policy, history has repeated itself. It was, for instance, once optional with the town whether it should have a school committee or not. In many towns the selectmen managed the schools, as they did everything else. After numerous towns had voluntarily appointed school committees, and shown the worth of such supervision, the State in 1826 decided that what was good for these towns was good for all, and so directed that thereafter every town should choose a school committee. There were towns that chafed under this mandatory policy, and the next Legislature was beset with petitions to repeal it, but to its credit it stood firm. To-day a petition for such repeal would be looked upon as preposterous. Nay, in colonial and provincial times there were towns in which such things as appointing teachers, fixing their salaries and making rules for the schools were not delegated to selectmen or special committees at all, but were settled in open town meeting,—the most democratic and primitive way of all, the town being a committee of the whole, as it were, for the purpose. It clears the situation for the school committee to understand that henceforth it has the same sort of authority in employing a superintendent of schools as in employing a teacher. It is for the school committee to select the one as the other, to determine what grade of qualifications it shall demand in each, and to fix upon the compensation that, in its judgment, will command the qualifications desired. In the case of the district superintendent, however, this authority of the school committee has to be exer-

cised jointly with other school committees, and within the limitations of the district superintendency law. It is now as much the duty of the town to appropriate money enough to cover the superintendent's salary as the salaries of teachers.

Inasmuch as nearly all the towns whose valuation exceeds \$2,500,000 already have superintendents, the new law is practically of chief concern to towns under that valuation that have not yet effected the necessary unions. Such unions can be better brought about by school committees than by towns acting in town meeting. Doubtless a few existing districts will need to be rearranged, in the interest of towns that otherwise cannot form satisfactory unions. In such cases it would be wise for the school committees, or authorized delegates thereof, of all the towns involved to meet and arrange at one sitting for the dissolution of the old and the organization of the new. Committees should show a certain comity here, because, when a plan requires the co-operation of several towns, there is need of mutual consideration to make it successful. Unless a certain regard is shown for the interests of neighbors, some towns will be left "stranded," as it were, bound by law to employ a superintendent, but unable to do so in the way the law prescribes. Should it appear that under the voluntary system the successful districting of the State cannot be accomplished, then further action by the Legislature will be necessary. Several new districts, however, have already been formed since the passage of the law of 1900; several more will be formed in 1901 and 1902, so that at some time during the legislative session of 1902 it will probably be clear whether the situation requires a partial or general redistricting of the eligible towns or only some special provision for the stranded cases. Meanwhile, it is to be hoped that school committees will do their work of arranging unions so well as to leave nothing for the Legislature to supplement.

*Table of Superintendency Districts.* — The superintendency districts aided by the State, with various facts about them, are given in the following table : —

XXVII Table showing the superintendency districts aided by the State.

Number.	DISTRICTS.	When formed	AT TIME OF FOR- MATION.		EACH TOWN'S SHARE OF SUPERINTENDENT'S —				JOINT COMMITTEE .		
			Valuation.	Number of schools.	Service.	Salary.	State aid to each town.	Superintend- ent's salary.	When super- intendent's year begins.	Chairman.	Secretary.
1	Duxbury, . Marshfield, . Scituate, .	1888 1888 1888	\$1,157,606 1,075,935 1,837,275	10 9 13	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	\$250 00 250 00 250 00	\$416 66 $\frac{2}{3}$ 416 66 $\frac{2}{3}$ 416 66 $\frac{2}{3}$	\$1,500 00	June 1.	Henry Barstow, Dux- bury, P.O., Island Creek.	Clara M. Skeele, Scit- uate.
2	Hubbardston, . Phillipston, . Royalston, . Templeton, .	1889 1889 1889 1889	711,450 272,664 623,161 1,115,871	10 4 9 16	$\frac{1}{2}$ $\frac{1}{10}$ $\frac{1}{2}$ $\frac{1}{2}$	150 00 75 00 150 00 375 00	250 00 125 00 250 00 625 00	1,500 00	July 1.	S. E. Greenwood, Templeton.	Walter F. Robie, Templeton.
3	Ashland, . Hopkinton, .	1889 1889	1,290,901 2,222,635	12 21	$\frac{2}{3}$ $\frac{3}{4}$	300 00 450 00	500 00 750 00	1,500 00	April 1.	G. C. Fiske, Ashland.	C. H. Coburn, Hop- kinton.
4	Erving, . Orange, . Wendell, .	1889 1889 1889	348,776 1,974,420 218,837	5 22 5	$\frac{6}{10}$ $\frac{2}{40}$ $\frac{5}{40}$	107 83 604 82 37 35	179 88 1,063 31 66 81	1,500 00	May 25.	James D. Kimball, Orange.	Mrs. Cora A. Stearns, Wendell Depot.
5	Easthampton, . Southampton, . Westhampton, .	1889 1889 1889	2,292,425 491,991 252,198	20 7 4	$\frac{1}{20}$ $\frac{5}{20}$ $\frac{2}{20}$	575 87 117 23 56 90	959 78 195 38 94 84	1,600 00	July 1.	Charles H. Johnson, Easthampton.	Charles N. Loud, Westhampton.
6	Conway, . Sunderland, . Whately, . Williamsburg, .	1889 1889 1889 1889	757,606 416,284 395,295 882,767	14 5 6 15	$\frac{3}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{5}{10}$	213 22 88 74 79 00 369 04	355 36 147 90 131 67 615 07	1,500 00	July 1.	C. G. Trow, Sunder- land.	Henry S. Higgins, East Whately.
7	Holden,* Leicester, .	1890 1890	1,068,240 1,355,413	16 15	$\frac{1}{2}$ $\frac{1}{2}$	62 50* 62 50	104 17* 104 16	1,500 00	April 19.	Rev. John F. Redi- can, Leicester.	W. E. Austin, Holden.
8	Barre, . Hardwick, . Petersham, .	1890 1890 1890	1,449,226 1,402,815 592,270	12 14 9	$\frac{1}{34}$ $\frac{1}{34}$ $\frac{7}{34}$	286 77 308 82 154 41	477 95 514 70 257 35	1,500 00	May 1.	Bainbridge J. Ben- nett, Petersham.	George W. Wheel- wright, Jr., Hard- wick.

9	Berlin, Northborough, Shrewsbury, Southborough,	1890 1890 1890 1890	495,996 1,254,092 1,168,670 1,371,738	5	¾ 1¼ 1¼ 1¼	113 64 204 54 227 28 204 54	189 40 340 90 378 80 340 90	1,500 00	May 1.	D.W. Bemis, Shrews- bury.	Perry H. White, Ber- lin (South).
10	Becket, Chester, Middletown, Washington,	1890 1890 1890 1890	383,858 520,480 237,685 201,889	8 10 7 7	¾ ¾ ¾ ¾	200 73 319 14 144 75 85 38	334 55 531 90 241 25 142 30	1,500 00	May 1.	Edward L. Cowles, Chester.	Jay L. Ripley, Ches- ter.
11	Brimfield, Monson,	1890 1890	425,800 1,757,753	9 20	¾ ¾	225 00 525 00	375 00 875 00	1,500 00	July 1.	James R. Brown, Brimfield.	William L. Ricketts, Monson.
12	Princeton, Sterling, Westminster,	1890 1890 1890	817,946 848,333 761,617	8 10 12	¾ ¾ ¾	150 00 300 00 300 00	250 00 500 00 500 00	1,500 00	July 1.	Frank A. Merriam, Westminster.	Arthur L. Wilder, Sterling.
13	Mansfield, Sharon, Stoughton,	1891 1891 1891	1,644,112 1,231,591 2,409,890	15 7 16	¾ ¾ ¾	300 00 150 00 300 00	500 00 250 00 500 00	1,650 00	April 13.	Oscar A. Marden, Stoughton.	A. J. Dyer, Sharon.
14	Dracut, North Reading, Tewksbury, Tyngsborough,	1891 1891 1891 1891	1,603,992 539,048 1,400,983 372,697	12 6 10 7	¾ ¾ ¾ ¾	300 00 75 00 300 00 75 00	500 00 125 00 500 00 125 00	1,800 00	May 4.	Selden Colburn, Dra- cut.	Edward D. Parker, North Reading.
15	Brookfield, North Brookfield,	1891 1891	1,294,445 1,710,555	16 16	¾ ¾	375 00 375 00	625 00 625 00	1,500 00	May 13.	Henry E. Cottle, Brookfield.	Timothy Howard, North Brookfield.
16	Egremont, New Marlborough, Richmond, Shenfield, West Stockbridge,	1891 1891 1891 1891 1891	425,100 577,630 468,726 884,156 625,113	3 10 7 14 10	¾ ¾ ¾ ¾ ¾	56 25 150 00 131 25 225 00 187 50	93 75 250 00 218 75 375 00 312 50	1,500 00	July 1.	James S. Ellis, Shef- field.	William C. Spaulding, West Stockbridge.
17	Grafton, Upton,	1891 1891	2,351,385 926,611	24 10	¾ ¾	502 50 187 50	937 50 312 50	1,500 00	May 24.	Francis M. McGarry, Grafton.	Appleton P. Williams, West Upton.
18	Agawam, Granville, Southwick,	1891 1891 1891	1,226,298 550,533 513,702	12 10 8	42 per cent. 29 per cent. 29 per cent.	315 00 217 50 217 50	525 00 362 50 362 50	1,500 00	July 1.	Charles P. Davis, Agawam.	H. O. Hannum, South- wick.
19	Dudley, Millbury, Oxford,	1891 1891 1891	1,003,680 2,103,061 1,296,860	13 16 12	¾ ¾ ¾	225 00 337 50 187 50	375 00 562 50 312 50	1,600 00	Aug. 1.	Lennel Healy, Dud- ley.	Thomas H. Sullivan, Millbury.

\* District dissolved. The payments are for two months.

XXVII. Table showing the superintendency districts aided by the State — Continued.

Number.	DISTRICTS.	When formed.	AT TIME OF FOR- MATION.		EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintendent's salary.	When super- intendent's year begins.	JOINT COMMITTEE.	
			Valuation.	Number of schools.	Service.	Salary.				Chairman.	Secretary.
20	Abington, . Bridgewater, .	1891 1891	\$2,309,723 2,363,676	15 17	$\frac{1}{2}$ $\frac{1}{2}$	\$375 00 375 00	\$625 00 625 00	\$2,000 00	Aug. 1.	Austin Turner, Bridgewater.	Isaac Damon, Bridge- water.
21	Buckland, . Colrain, . Shelburne, .	1892 1892 1892	537,682 565,828 860,840	9 15 10	$\frac{3}{10}$ $\frac{4}{10}$ $\frac{3}{10}$	925 00 300 00 225 00	375 00 300 00 375 00	1,500 00	April 24.	Edwin Baker, Shel- burne.	Herbert Newell, Buckland.
22	Bourne, . Mashpee, . Sandwich, .	1892 1892 1892	1,465,375 179,370 849,800	11 2 11	$\frac{9}{20}$ $\frac{2}{20}$ $\frac{9}{20}$	337 50 75 00 337 50	592 50 125 00 592 50	1,500 00	July 1.	Chas. H. Hammond, Mashpee.	Elizabeth Clark, Sandwich.
23	East Bridgewater, . Raynham, . West Bridgewater, .	1892 1892 1892	1,488,939 788,001 1,094,632	14 8 10	$\frac{17}{100}$ $\frac{19}{100}$ $\frac{13}{100}$	350 00 150 00 250 00	583 33 250 00 416 67	1,500 00	May 20.	William H. Taylor, East Bridgewater.	Mrs. Martha K. Crosby, West Bridgewater.
24	Dennis, . Yarmouth, .	1892 1892	1,216,610 1,814,660	17 9	$\frac{3}{2}$ $\frac{2}{2}$	508 81 241 19	848 14 401 86	1,500 00	July 5.	Joshua Crowell, Den- nis (East).	Joshua F. Crowell, Yarmouth (West).
25	Warren, . Wales, .	1893 1893	2,458,835 276,825	24 5	$\frac{4}{5}$ $\frac{1}{5}$	600 00 150 00	1,000 00 250 00	1,500 00	Aug. 1.	Frank E. Gleason, Warren.	Joseph G. Hastings, Warren.
26	Lunenburg, . Winchendon, .	1893 1893	760,539 2,215,722	8 19	$\frac{1}{2}$ $\frac{2}{2}$	250 00 500 00	416 66 $\frac{2}{3}$ 833 33 $\frac{1}{3}$	1,600 00	May 2.	Charles A. Goodrich, Lunenburg.	Frank B. Spalter, Winchendon.
27	East Longmeadow, . Longmeadow, . Hamden, . Ludlow, . Wilbraham, .	1893 1893 1893 1893 1893	1,202,068 415,300 1,036,708 760,147	11 6 14 10	$\frac{9}{17}$ $\frac{6}{17}$ $\frac{5}{17}$ $\frac{1}{17}$ $\frac{11}{17}$	143 62 95 75 79 78 255 32 175 53	239 36 159 58 132 98 425 32 292 55	1,550 00	July 1.	Jason Butler, Wil- braham.	Charles B. Bennett, Ludlow.
28	Dartmouth, . Westport, .	1893 1893	2,366,225 1,366,750	20 18	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	July 1.	Job S. Gidley, Dart- mouth (North).	Annie E. Sherman, Westport.

29	Hanover, Hanson, Norwell,	. . . . .	. 1894 1894 1894	1,180,726 620,840 885,637	8 8 10	$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$	250 00 250 00 250 00	416 67 416 66 416 67	1,500 00	April 27.	Rev. Melvin S. Nash, Hanover (North).	Evie W. Drew, Han- son.
30	Cheshire, Dalton,	. . .	. 1894 1894	701,890 2,303,915	8 18	$\frac{3}{10}$ $\frac{7}{10}$	225 00 525 00	375 00 875 00	1,500 00	April 1.	George Z. Dean, Cheshire.	William J. Simmons, Dalton.
31	Chatham,* Provincetown, Wellfleet,	. . . . .	. 1900 1894 1894	884,975 2,079,562 611,063	12 21 5	$\frac{3}{8}$ $\frac{5}{8}$ $\frac{1}{8}$	250 00 416 65 $\frac{1}{2}$ 83 33 $\frac{1}{2}$	416 67 694 44 138 89	1,500 00	Sept. 7.	Andrew T. Williams, Provincetown.	F. A. Rogers, M.D., Chatham.
32	Norton, Wrentham,	. . .	. 1894 1894	778,616 1,447,747	9 16	$\frac{2}{5}$ $\frac{3}{5}$	300 00 450 00	500 00 750 00	1,500 00	May 1.	Willis M. Fuller, Wrentham.	George E. Makepeace, Norton.
33	Bellingham, Hopedale, Mendon,	. . . . .	. 1894 1894 1894	686,495 1,704,572 537,175	10 6 8	$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$	250 00 250 00 250 00	416 69 $\frac{3}{4}$ 416 66 $\frac{1}{2}$ 416 66 $\frac{3}{4}$	1,650 00	May 28.	Erwin A. Snow, Men- don.	Frank J. Dutcher, Hopedale.
34	Brewster, Eastham, Harwich, Orleans,	. . . . . . .	. 1894 1894 1894 1894	556,405 297,251 1,073,790 551,146	5 3 13 4	$\frac{5}{24}$ $\frac{3}{24}$ $\frac{1}{24}$ $\frac{4}{24}$	156 25 93 75 375 00 125 00	260 42 156 25 625 00 208 33	1,500 00	June 18.	George M. Munsell, M.D., Harwich.	Thomas D. Sears, Brewster.
35	South Granby,	. . .	. 1895 1895	441,887 2,083,820	8 21	$\frac{1}{4}$ $\frac{3}{4}$	187 50 562 50	312 50 937 50	1,500 00	April 1.	J. Webster Bean, South Hadley.	William S. Clark, Granby.
36	Deerfield, Hatfield, Leverett,	. . . . .	. 1895 1895 1895	1,585,519 927,764 275,256	16 8 5	$\frac{13}{25}$ $\frac{6}{25}$ $\frac{4}{25}$	360 00 240 00 150 00	600 00 400 00 250 00	1,500 00	April 22.	P. D. Bridges, Deer- field.	H. W. Field, Leverett.
37	Gill, Northfield, Warwick,	. . . . .	. 1895 1895 1895	482,469 894,048 310,750	5 9 7	$\frac{1}{6}$ $\frac{2}{5}$ $\frac{2}{5}$	144 24 239 36 346 20	240 40 432 00 577 00	1,500 00	May 7.	Leonard R. Smith, Northfield.	Nellie M. Wood, North- field.
38	Bolton, Boylston, Harvard, Shirley,	. . . . . . .	. 1895 1895 1895 1895	477,184 524,311 920,958 737,135	7 5 9 9	$\frac{9}{28}$ $\frac{5}{28}$ $\frac{9}{28}$ $\frac{8}{28}$	160 71 133 93 241 07 214 29	267 86 223 21 401 79 357 14	1,500 00	July 1.	Warren H. Fairbank, Harvard.	George L. Wright, Boylston (Centre).
39	Chilmark, Cottage City, Edgartown, Tisbury, West Tisbury,	. . . . . . . . .	. 1897 1895 1895 1895 1895	215,877 1,567,700 730,337 874,150 387,263	3 4 6 4 3	$\frac{2}{20}$ $\frac{5}{20}$ $\frac{5}{20}$ $\frac{4}{20}$ $\frac{4}{20}$	75 00 187 50 312 50 150 00 250 00	125 00 312 50 312 50 250 00 250 00	1,500 00	July 10.	Ulysses E. Mayhew, West Tisbury.	W. Channing Nevins, Edgartown.

† Added in 1897.

\* Added in 1900.

XXXVII. Table showing the superintendency districts aided by the State — Conclude .

Number.	DISTRICTS.	When formed.	AT TIME OF FOR- MATION.		EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintend- ent's salary.	When super- intendents year begins.	JOINT COMMITTEE.	
			Valuation.	Number of schools.	Service.	Salary.				Chairman.	Secretary.
40	Georgetown, Groveland, Rowley, . . .	1895 1895 1895	\$991,890 948,218 642,706	11 12 6	$\frac{2}{3}$ $\frac{2}{3}$ $\frac{1}{3}$	\$300 00 300 00 150 00	\$500 00 500 00 250 00	\$1,500 00	July 1.	Albert L. Wales, Groveland.	Arthur W. Peabody, Rowley.
41	Carlisle, Chelmsford, Dunstable, . .	1896 1896 1896	349,723 2,176,635 255,457	5 17 3	$\frac{5}{12}$ $\frac{12}{12}$ $\frac{5}{12}$	187 50 450 00 112 50	312 50 150 00 187 50	1,500 00	May 1.	Rev. Ernest C. Bart- lett, Chelmsford.	A. Herbert Armes, Carlisle.
42	Holliston, Melway, . . .	1896 1896 1896	1,571,982 1,433,130 802,530	13 16 5	$\frac{2}{3}$ $\frac{2}{3}$ $\frac{1}{3}$	300 00 300 00 150 00	500 00 500 00 250 00	1,500 00	Sept. 1.	Norman B. Douglas, Sherborn.	N. Vander Pyl, Hol- liston.
43	Acushnet, . Fairhaven, Mattapoisett, .	1897 1897 1897	634,060 2,223,737 1,507,388	6 16 5	$\frac{1}{3}$ $\frac{3}{3}$ $\frac{1}{3}$	150 00 450 00 150 00	250 00 750 00 250 00	1,500 00	April 15.	George H. Palmer, Fairhaven.	Thomas A. Tripp, Fairhaven.
44	Charlément, Florida, . . .	1897 1897 1897	353,299 132,012 143,192	10 4 7	$\frac{10}{31}$ $\frac{5}{31}$ $\frac{9}{31}$	241 93 $\frac{1}{2}$ 130 96 145 17	403 22 $\frac{1}{2}$ 291 60 241 93	1,600 00	April 26.	Charles Crittenden, Charlément.	Anna L. Henry, Rowe.
45	Monroe, Rowe, . . .	1897 1897	138,818 176,782	3 5	$\frac{4}{31}$ $\frac{9}{31}$	96 76 $\frac{1}{2}$ 145 17	161 27 $\frac{1}{2}$ 241 35	1,500 00	July 1.	H. R. Foster, Ashby.	E. C. Tuttle, Towns- end.
46	Dover, Sudbury, . . .	1898 1898 1898	824,374 1,166,349 1,648,465	4 7 13	$\frac{2}{10}$ $\frac{3}{10}$ $\frac{5}{10}$	150 00 225 00 375 00	250 00 375 00 625 00	1,500 00	Sept. 1.	Deloss W. Mitchell, Wayland.	George E. Harrington, Sudbury.
47	New Braintree, Sturbridge, West Brookfield,	1898 1898 1898	410,450 915,250 765,189	5 13 8	$\frac{3}{10}$ $\frac{4}{10}$ $\frac{3}{10}$	225 00 300 00 225 00	375 00 500 00 375 00	1,500 00	May 21.	Alfred C. White, West Brookfield.	George K. Tufis, New Braintree.
48	Ayer, . . . West Boylston, .	1898 1898	1,450,329 789,255	11 15	$\frac{2}{3}$ $\frac{2}{3}$	300 00 450 00	500 00 750 00	1,600 00	July 1.	D. B. Lovell, West Boylston.	George H. Brown, Ayer.



49	Acton, Littleton, Westford, . . .	1898 1898 1898	1,538,050 878,325 1,266,454	9 7 16	$\frac{3}{10}$ $\frac{2}{10}$ $\frac{5}{10}$	225 00 150 00 375 00	375 00 250 00 625 00	1,500 00	Sept. 1.	Nathan A. Taylor, Littleton.	Charles J. Williams, Acton.
50	Foxborough, West Newbury, . . .	1899 1899	2,018,088 855,621	15 11	$\frac{3}{2}$ $\frac{2}{2}$	450 00 300 00	750 00 500 00	1,500 00	July 1.	Frederick H. Fuller, Foxborough.	Josiah R. Gordon, West Newbury.
51	Medford, Walpole, . . .	1899 1899	1,311,568 2,433,071	8 15	$\frac{2}{2}$ $\frac{3}{2}$	300 00 450 00	500 00 750 00	1,500 00	April 1.	Junius B. Mowry, Walpole (South).	George Washburn, Medford.
52	Billerica, Merrimac, . . .	1899 1899	1,841,914 1,300,829	15 14	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	Sept. 1.	Frederick A. Casey, Billerica.	George E. Ricker, Merrimac.
53	Freetown, Seekonk, . . .	1900 1900	821,322 948,715	8 9	$\frac{1}{2}$ $\frac{2}{2}$	250 00 250 00	416 66 416 67	1,500 00	May 1.	Hiram A. Thurber, Seekonk.	Mrs. Viola N. Burns, Freetown.
54	Wareham, Wareham, . . .	1900 1900	1,052,270 2,348,013	6 22	$\frac{2}{2}$ $\frac{3}{2}$	250 00 300 00	416 67 833 33	1,500 00	June 1.	John Huxtable, Ware- ham.	Annie E. Luce, Marion.
55	Holden, Oakham, . . .	1900 1900	1,253,573 317,710	16 5	$\frac{5}{10}$ $\frac{2}{10}$	375 00 150 00	625 00 250 00	1,500 00	Aug. 1.	Walker A. Hunter, Rutland.	Mrs. Marion E. War- ren, Holden.
56	Paxton, Rutland, . . .	1900 1900	304,575 613,256	3 6	$\frac{1}{10}$ $\frac{2}{10}$	175 00 50 00	125 00 250 00	1,500 00	Sept. 1.	John E. Urquhart, Ashfield.	F. G. Howes, Ashfield.
57	Ashfield, Cummington, . . .	1900 1900	532,307 287,105	10 6	$\frac{10}{24}$ $\frac{6}{24}$	312 50 187 50	520 83 $\frac{1}{2}$ 312 50	1,500 00	Sept. 1.	Ernest H. Hosmer, Bedford.	Mary E. Laws, Bed- ford.
58	Plainfield, Bedford, . . .	1900 1900	189,513 168,081	3 5	$\frac{3}{24}$ $\frac{5}{24}$	93 75 156 25	156 25 260 41 $\frac{2}{3}$	1,500 00	May 28.	A. H. Thayer, Wake- field.	J. W. Perkins, Lynn- field (Centre).
59	Burlington, Lincoln, . . .	1900 1900	1,104,477 574,362	5 3	$\frac{5}{20}$ $\frac{2}{20}$	187 50 112 50	312 50 187 50	2,000 00	Sept. 1.		
60	Wilmington, Wilmington, . . .	1900 1900	2,237,233 1,055,877	5 9	$\frac{2}{20}$ $\frac{2}{20}$	262 50 75 00	437 50 125 00	2,000 00	Sept. 1.		
61	Lynnfield, Wakefield, . . .	1900 1900	672,245 7,765,215	4 40	$\frac{4}{10}$ $\frac{5}{10}$						

1. Of the foregoing districts, those numbered 33, 34, 39 and 45 were authorized by special acts of the Legislature, — the 33d and 34th by chapters 246 and 341, Acts of 1894; the 39th by chapter 371, Acts of 1895; and the 45th by chapter 433, Acts of 1897. One town has been added to the 34th district since its formation. These districts did not furnish schools enough to permit an organization under the general law. The district numbered 7 was dissolved June 19, 1900.

2. For comments on certain data contained in the table, see page 178.

3. In gathering so many facts about these districts, it is quite possible that errors of detail have crept in. Corrections of such errors will be welcomed.

*Comments on Table XXVII.* — Section 3, chapter 466, Acts of 1898, requires that the certificate of a superintendency district on which the payment of money to the district by the State is based shall be approved by the State Board of Education before it goes to the State Auditor. It has become important, therefore, that the Board should have in its possession various data relating to the organization and administration of the superintendency districts. The foregoing table presents these data in convenient form for reference. The districts are arranged as nearly in the order of their formation as circumstances will permit. The valuations for a district are given for the valuation year (May 1 to May 1) during which the district was organized, and are taken from the official report of the Secretary of the Commonwealth. The number of schools for each town is taken from its returns to the Board for the year when the district was formed. Occasionally a district has been modified by the loss or the addition of a town, so that, though it dates in one sense from the year given, it might be technically regarded as dating from the time when it assumed its present shape. These items in some cases vary a little from the answers made in response to inquiries sent out from the office to the several joint committees relative to the history of their districts, but not enough to raise questions as to the legality of these districts. Of course the valuations and the numbers of schools have undergone changes since the organization of the districts. Whether a district is legally constituted or not, turns, in part, on whether its valuations and aggregate number of schools were within the prescribed limits at the time of formation, and have not since exceeded the allowable margin of valuation, which is \$3,500,000.

The shares of service rendered by the superintendent to the several towns of a district are based on present conditions which the table does not give. The shares of salary paid by the towns to the superintendent usually follow the shares of service agreed upon for him, but not invariably, the law not requiring that the salary shall be apportioned according to the service. Some districts figure out these details with closeness, others with considerable freedom. But whatever amounts the towns of a district severally contribute towards \$750 of the superintendent's salary, such amounts determine their respective shares in

what the State contributes to the district. If the towns choose to pay a salary higher than \$1,500, the minimum required by the State, they may raise the excess as they please.

*A Practice that needs Amendment.*—Hitherto it has been the practice of the State to wait until the expiration of the superintendent's year, and then pay the entire amount of its contribution to a district to the chairman or the secretary of the joint committee, as indicated in the committee's certificate. The practice doubtless grew up because there were towns that paid only their own share in the superintendent's salary, leaving the State to pay its share when it saw fit. The State, having no occasion to make good any advances by the towns on State account, and being averse to making payments in dribblets, fell into the practice indicated. The chairman or the secretary would then distribute the State's contribution as conditions required, paying the money intended for teachers' salaries to the several town treasurers, and that intended for the superintendent's salary to such town treasurers as had advanced it, otherwise to the superintendent directly.

The objections to the practice are obvious. Contributions by the State towards the school expenditures of a town should be made directly to the town treasurer,—an officer placed under bonds and duly sworn to guard the town's interests in such matters. Receipts and expenditures on account of a district superintendency should appear in full in the treasurer's report, so that the town may know the whole story; and the fiscal returns of the school committee to the State should harmonize with such report. Under present conditions the State's money reaches some of the superintendents without going into the town treasury at all, so that the incomplete fiscal reports of superintendency transactions that reach the people of the town are misleading. The office knows, however, what the towns should report, and so is on its guard against the errors that might otherwise impair its own statements of supervision expenditures. The practice is one primarily for the State to correct. It is recommended, however, that every town regularly advance to the district superintendent the State's contributions to his salary, and insist that all receipts from the State on account of the superintendency district shall ultimately reach the town treasury and appear in the treasurer's

report. As a matter of fact, the majority of towns in the districts are now doing this very thing. The superintendent ought not to be deprived of half his salary for a year or more. The amount saved by a town in declining to make the necessary advances is too trifling to be mentioned beside the inconvenience occasioned.

*Towns without Superintendents of Schools.*—The following towns were without superintendents of schools Dec. 1, 1900:—

TOWNS.	Population 1895.	Valuation May 1, 1899.	Number of schools.	Number of different pupils.
<i>Barnstable County.</i>				
1. Truro, . . . . .	815	\$329,815	6	154
<i>Berkshire County.</i>				
1. Alford, . . . . .	280	168,093	2	39
2. Clarksburg, . . . . .	1,009	237,638	5	268
3. Hancock, . . . . .	511	297,771	5	89
4. Hinsdale, . . . . .	1,650	555,428	11	286
5. Lanesborough, . . . . .	848	457,568	6	160
6. Lee, . . . . .	4,066	1,735,483	12	592
7. Monterey, . . . . .	464	225,935	5	89
8. Mount Washington, . . . . .	136	90,843	2	30
9. New Ashford, . . . . .	116	57,165	1	25
10. Otis, . . . . .	518	206,580	6	66
11. Peru, . . . . .	305	118,924	3	44
12. Sandisfield, . . . . .	802	329,614	8	114
13. Savoy, . . . . .	504	157,765	7	104
14. Tyringham, . . . . .	363	216,719	3	64
15. Windsor, . . . . .	556	192,238	7	96
<i>Bristol County.</i>				
1. Berkley, . . . . .	955	388,819	7	173
2. Rehoboth, . . . . .	1,810	744,480	13	339
3. Somerset, . . . . .	1,983	1,022,713	9	352
<i>Dukes County.</i>				
1. Gay Head, . . . . .	169	26,217	1	47
2. Gosnold, . . . . .	140	224,926	1	22
<i>Essex County.</i>				
1. Amesbury, . . . . .	9,986	5,152,431	31	1,247
2. Boxford, . . . . .	727	688,435	5	104
3. Danvers, . . . . .	8,181	5,109,540	31	1,588
4. Essex, . . . . .	1,587	971,799	9	344
5. Hamilton, . . . . .	1,356	1,943,585	7	253
6. Ipswich, . . . . .	4,720	3,091,932	19	743
7. Middleton, . . . . .	838	550,333	3	137
8. Newbury, . . . . .	1,489	1,074,126	7	269
9. Salisbury, . . . . .	1,300	657,970	8	256

Towns.	Population 1895.	Valuation May 1, 1899.	Number of schools.	Number of different pupils.
<i>Essex County—Con.</i>				
10. Topsfield, . . . .	1,033	\$814,895	5	161
11. Wenham, . . . .	886	951,600	5	138
<i>Franklin County.</i>				
1. Bernardston, . . . .	778	390,179	8	120
2. Heath, . . . .	476	156,544	7	119
3. Leyden, . . . .	363	195,254	5	77
4. New Salem, . . . .	869	277,430	10	195
5. Shutesbury, . . . .	444	168,260	4	58
<i>Hampden County.</i>				
1. Holland, . . . .	199	87,557	1	22
2. Montgomery, . . . .	275	141,207	5	50
3. Russell, . . . .	846	491,004	7	131
4. Tolland, . . . .	309	143,857	7	62
<i>Hampshire County.</i>				
1. Belchertown, . . . .	2,161	860,435	20	512
2. Chesterfield, . . . .	589	279,308	6	105
3. Enfield, . . . .	990	817,740	8	241
4. Greenwich, . . . .	481	249,995	3	74
5. Hadley, . . . .	1,704	974,484	11	258
6. Huntington, . . . .	1,450	510,041	10	347
7. Pelham, . . . .	486	178,137	4	120
8. Prescott, . . . .	401	160,810	5	70
9. Worthington, . . . .	648	305,126	8	155
<i>Nantucket County.</i>				
1. Nantucket, . . . .	3,016	3,344,038	11	409
<i>Norfolk County.</i>				
1. Holbrook, . . . .	2,298	1,210,522	12	514
2. Norfolk, . . . .	882	533,722	5	192
3. Randolph, . . . .	3,694	1,890,850	16	716
<i>Plymouth County.</i>				
1. Carver, . . . .	1,016	876,160	7	195
2. Halifax, . . . .	497	268,148	3	92
3. Lakeville, . . . .	870	456,832	6	132
4. Pembroke, . . . .	1,223	631,275	7	192
5. Plympton, . . . .	549	314,032	3	68
6. Rochester, . . . .	1,021	485,609	6	201
<i>Worcester County.</i>				
1. Ashburnham, . . . .	2,148	973,010	13	418
2. Auburn, . . . .	1,598	577,110	9	334
3. Charlton, . . . .	1,877	896,700	14	372
4. Dana, . . . .	717	299,895	5	126
5. Douglas, . . . .	2,026	1,052,691	10	375
6. Lancaster, . . . .	2,180	3,103,280	11	420
7. Leicester, . . . .	3,239	2,634,565	16	748
8. Sutton, . . . .	3,420	1,204,969	17	650
Totals (68 towns), . .	95,843	\$55,932,156	550	17,263

Nearly half of the foregoing towns have endeavored at different times to effect unions with their neighbors, but in vain. The method of forming them by action in town meeting is cumbersome, and subject to miscarriage. The legislation of 1900, in transferring the union-making power from the towns to the school committees, has made its exercise simpler and easier. Already several unions have been formed under the new plan, so that now the foregoing list contains but 68 towns, whereas a year ago it contained 87. The unions to be formed in 1901 and 1902 will, it is hoped, largely reduce, if not wholly extinguish, the list. The law is mandatory after July 1, 1902; but there seems to be a spirit on the part of the towns to anticipate its mandate by voluntary action.

*Movement of Ineligible Towns towards Supervision by Superintendents.*—Nearly all the towns whose valuation exceeds \$2,500,000 each, and therefore debars them from State aid for supervision purposes, nevertheless have superintendents of schools. The number of such towns without superintendents has been gradually reducing, as appears from the following statement:—

YEAR.	Number of ineligible towns without superintendents.	Population.	Valuation.	Number of schools.	Number of different pupils.
1895, . . .	15	73,196	\$57,144,046	277	12,110
1896, . . .	12	60,407	48,830,798	244	10,408
1897, . . .	11	61,805	48,072,086	281	11,049
1898, . . .	7	35,798	25,256,304	142	6,140
1899, . . .	5	28,083	19,621,421	108	4,789
1900, . . .	6	31,322	22,435,786	119	5,115

The six ineligible towns without superintendents are Amesbury, Danvers, Ipswich, Nantucket, Lancaster and Leicester. Leicester was united with Holden for many years in a superintendency district, and might have continued to receive aid from the State, notwithstanding the fact that the town's valuation had risen above \$2,500,000, had the district not been dissolved. The law permits towns to remain in districts until their valuation reaches \$3,500,000, although they cannot

enter districts after they have reached \$2,500,000. If a town, after passing the lower limit, is thrown out of a union through no act of its own, it is a hardship that ought not to be permitted. So, too, the presence in districts of towns that have passed the lower valuation limit ought not to be an obstacle to the formation of more convenient unions. For the office is advised by the Attorney-General that the withdrawal of a town from a union dissolves that union for good. Of the towns thus set free, those under \$2,500,000 can enter new unions, while those over \$2,500,000 cannot. This policy answers well enough for a voluntary system, whose aim is to foster unions and discourage their dissolution. Now that the State is to require all towns under \$2,500,000 to form unions, it is a pertinent question whether it ought not to abandon its distinction between district towns whose valuation lies between \$2,500,000 and \$3,500,000, and non-district towns whose valuation lies between the same limits, and treat all under the upper limit alike.

The following is a list of the towns whose valuation May 1, 1899, came between \$2,500,000 and \$3,500,000:—

Towns.	Population 1895.	Valuation May 1, 1899.	Number of schools.	Number of different pupils.
<i>Berkshire County.</i>				
Dalton, . . . . .	3,210	\$2,580,457	19	634
Stockbridge, . . . . .	2,077	3,225,612	11	453
Williamstown, . . . . .	4,887	2,913,776	27	1,013
<i>Bristol County.</i>				
Dartmouth, . . . . .	3,107	2,714,275	22	573
<i>Essex County.</i>				
Ipswich, . . . . .	4,720	3,091,932	19	743
North Andover, . . . . .	3,569	3,373,360	20	866
Rockport, . . . . .	5,289	2,743,018	18	803
<i>Franklin County.</i>				
Orange, . . . . .	5,361	2,874,365	27	1,169
<i>Hampden County.</i>				
Palmer, . . . . .	6,858	2,803,853	31	1,304
<i>Hampshire County.</i>				
Amherst, . . . . .	4,785	3,168,982	18	889
Easthampton, . . . . .	4,790	2,919,567	25	931

TOWNS.	Population 1895.	Valuation May 1, 1899.	Number of schools.	Number of different pupils.
<i>Middlesex County.</i>				
Groton, . . . . .	2,192	\$3,144,283	14	465
Hudson, . . . . .	5,308	2,939,537	25	1,016
<i>Nantucket County.</i>				
Nantucket, . . . . .	3,016	3,344,038	11	409
<i>Norfolk County.</i>				
Franklin, . . . . .	5,136	3,223,145	13	833
Needham, . . . . .	3,511	3,435,790	21	856
Stoughton, . . . . .	5,272	2,952,375	18	895
Walpole, . . . . .	2,994	2,542,062	17	687
<i>Plymouth County.</i>				
Bridgewater, . . . . .	4,686	2,501,849	21	849
Rockland, . . . . .	5,523	3,053,281	24	1,157
Scituate, . . . . .	2,246	2,554,295	11	374
<i>Worcester County.</i>				
Blackstone, . . . . .	6,039	2,689,910	23	1,075
Lancaster, . . . . .	2,180	3,103,280	11	420
Leicester, . . . . .	3,239	2,634,565	16	748
Northbridge, . . . . .	5,286	3,339,476	29	1,370
Spencer, . . . . .	7,614	3,471,170	39	1,367
Webster, . . . . .	7,799	3,367,460	18	913
Westborough, . . . . .	5,235	2,828,531	16	845
Totals, . . . . .	125,929	\$83,534,244	564	23,667

The foregoing list is based on the valuation of May 1, 1899. The valuation of May 1, 1900, adds South Hadley, Wareham and Winchendon to the list, and drops Webster, as appears from the following statement: —

TOWNS.	Population 1895.	Valuation May 1, 1900.	Number of schools.	Number of different pupils.
<i>Hampshire County.</i>				
South Hadley, . . . . .	4,443	\$2,510,040	22	941
<i>Plymouth County.</i>				
Wareham, . . . . .	3,367	2,512,755	22	627
<i>Worcester County.</i>				
Webster, . . . . .	7,799	4,974,105	18	913
Winchendon, . . . . .	4,490	2,614,354	21	970



The superintendency arrangements of the foregoing 30 towns (Webster now excluded) are as follows:—

1. Four employ superintendents on full time, — Williamstown, Amherst, Blackstone and Spencer.

2. Four employ superintendents in conjunction with other towns but without aid from the State, — Groton sharing with Hudson in the superintendent's service, and Needham and Rockland with Winchester and Whitman respectively, the two latter not being in the list.

3. Eleven are in superintendency districts aided by the State, namely, Dalton, Dartmouth, Orange, Easthampton, Stoughton, Walpole, Bridgewater, Seituante, South Hadley, Wareham and Winchendon.

4. Five employ the high school principal as superintendent also, — Stockbridge, Palmer, Franklin, Northbridge and Westborough.

5. Two employ a superintendent each on part time, — Rockport and North Andover.

6. Four are without superintendents, — Ipswich, Nantucket, Lancaster and Leicester.

The reasons for bringing all of the foregoing towns within the operation of the district superintendency laws are not equally pressing. Lancaster, for instance, has a valuation of \$8.253 for each child in the average membership of its public schools and a tax rate, in 1900, of \$12.75; while Blackstone has only \$3.005 behind each child and a tax rate of \$18.10. But the reasons are not equally pressing for towns that have already been admitted to the district.

Some towns employ the high school principal as superintendent also, reasoning that, if they unite the two offices in one person, they can afford to pay a higher salary, and so command higher qualifications. The reasoning is correct so far as it goes. But if these towns were in superintendency districts, they probably could afford to utilize the principal's superior qualifications in the exclusive service of the high school. The work of the high school, and particularly of the high school that must get along with only two or three teachers, is so exacting that it is not good policy to add to the principal's duties those of a superintendency. The danger is that one side of his work or the other, more likely both, will suffer, let him be never so able.

As to superintendencies that command but a portion of the time of persons engaged in other pursuits, at a compensation but little more than nominal, it may be said, without the slightest reflection upon the holders thereof, who doubtless render a full equivalent or more for their humble pay, that they do not conform to the unwritten standards already set for them in the general practice of the State.

*Movement of Eligible Towns towards Supervision by Superintendents.* — The following statement shows that the movement of eligible towns towards district supervision from 1895 to 1899 was nearly at a standstill. More progress was made in 1900 than in all of the preceding five years.

YEAR.	Number of eligible towns without superintendents.	Population.	Valuation.	Number of schools.	Number of different pupils.
1895, . . .	85	81,861	\$48,404,852	591	16,665
1896, . . .	82	85,918	46,009,908	582	16,036
1897, . . .	79	85,270	45,813,981	538	16,159
1898, . . .	80	86,529	47,032,935	572	16,542
1899, . . .	78	81,524	45,325,754	544	15,645
1900, . . .	62	64,521	33,496,370	431	12,108

#### SUPERVISION BY SUPERINTENDENTS OF SCHOOLS IN MASSACHUSETTS.

*Classification of Superintendents.* — The superintendents of Massachusetts may be classified as follows: —

1. Superintendents who give full time to single cities or towns.

2. Superintendents who give full time to groups of two or more towns not aided by the State.

3. Superintendents who give full time to groups of towns aided by the State.

4. Superintendents who give part time to single towns.

5. High school principals who serve also as superintendents.

6. Members of school committees returned as superintendents.

Appointments of superintendents in the first, second (with one exception), fourth, fifth and sixth groups are made under the law of 1854 (see section 43, chapter 44, Public Statutes). Appointments in the third group are made under the laws of 1888, 1893, 1898 (see chapter 466, Acts of 1898, where previous acts have been codified) and 1900, or, in a few cases, under special acts of the Legislature.

## XXVIII.

*Group 1.—Superintendents giving full time each to a single city or town.*

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Aldrich, George I., . .	\$4,000	Brookline, . .	Brookline.
Arnold, Sarah L.,* . .	3,780	Boston, . . .	Boston.
Balliet, Thomas M., . .	4,000	Springfield, . .	Springfield.
Barbour, A. L., . . .	1,600	Natick, . . .	Natick.
Bates, William C., . .	3,300	Fall River, . .	Fall River.
Blodgett, S. F., . . .	2,000	South Framlingham,	Framlingham.
Bouton, Eugene, . . .	2,300	Pittsfield, . . .	Pittsfield.
Boyden, C. F., . . .	2,150	Taunton, . . .	Taunton.
Brehaut, James W., . .	1,800	North Attleborough,	North Attleborough.
Brockway, C. E., . . .	1,500	West Springfield, .	West Springfield.
Brodeur, C. A., . . .	2,000	Chicopee Falls, .	Chicopee.
Bruce, Orsamus B., . .	2,700	Lynn, . . .	Lynn.
Burke, John E., . . .	3,000	Lawrence, . . .	Lawrence.
Burrington, Lester L., .	1,600	Peabody, . . .	Peabody.
Carfrey, J. H., . . .	1,800	Northampton, . .	Northampton.
Carroll, C. F., . . .	4,000	Worcester, . . .	Worcester.
Clarke, John T., . . .	1,400	Southbridge, . .	Southbridge.
Clapp, George I., . . .	1,400	Spencer, . . .	Spencer.
Cogswell, Francis, . . .	3,500	Cambridge, . . .	Cambridge.
Condon, Randall J., . .	2,500	Everett, . . .	Everett.
Conley, George H.,* . .	3,780	Boston, . . .	Boston.
Dame, D. P., . . .	2,400	Mattapan, . . .	Milton.
Danforth, G. H., . . .	1,800	Greenfield, . . .	Greenfield.
Davis, Josiah B., . . .	900	Millville, . . .	Blackstone.
Draper, Frank O., . . .	2,500	Hyde Park, . . .	Hyde Park.
Edgerly, Joseph G., . .	2,700	Fitchburg, . . .	Fitchburg.
Emerson, Thomas, . . .	2,000	Woburn, . . .	Woburn.

\* Supervisor, Boston.

## XXVIII. — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Evans, Osmon C., . . .	\$1,500	North Easton, . . .	Easton.
Fifield, A. B., . . .	3,500	Newtonville, . . .	Newton.
Gay, George E., . . .	2,500	Malden, . . .	Malden.
Gray, John C., . . .	1,900	Adams, . . .	Adams.
Haley, Charles W., . . .	1,700	Milford, . . .	Milford.
Hall, I. Freeman, . . .	2,750	North Adams, . . .	North Adams.
Hardy, A. L., . . .	1,500	Amherst, . . .	Amherst.
Hatch, William E., . . .	3,500	New Bedford, . . .	New Bedford.
Hayward, Harriet S., Ass't, .	1,000	Brockton, . . .	Brockton.
Heavens, Frank J., . . .	2,000	Plymouth, . . .	Plymouth.
Hine, Roderick W., . . .	2,100	Dedham, . . .	Dedham.
Holmes, Stanley H., . . .	2,000	Westfield, . . .	Westfield.
Horne, Irving W., . . .	1,400	Braintree, . . .	Braintree.
Hunt, Charles L., . . .	1,800	Clinton, . . .	Clinton.
Jacoby, Asher J., . . .	1,700	Middleborough, . . .	Middleborough.
Johnson, George E., . . .	1,700	Andover, . . .	Andover.
Kelly, W. P., . . .	1,500	Attleborough, . . .	Attleborough.
Kingman, F. W., . . .	1,200	Hyannis, . . .	Barnstable.
Lewis, Mary A., Ass't, .	1,200	Cambridge, . . .	Cambridge.
Lunt, William P., . . .	1,200	Newburyport, . . .	Newburyport.
Martin, George H.,* . . .	3,780	Boston, . . .	Boston.
McKeen, Roscoe D., . . .	2,250	Haverhill, . . .	Haverhill.
Metcalf, Robert C.,* . . .	3,780	Boston, . . .	Boston.
Mitchell, Walter G., . . .	1,200	Williamstown, . . .	Williamstown.
Morse, C. H., . . .	2,500	West Medford, . . .	Medford.
Nash, Louis P., . . .	2,800	Holyoke, . . .	Holyoke.
Nickerson, F. H., . . .	2,100	Melrose, . . .	Melrose.
Page, Frank R., . . .	1,800	Watertown, . . .	Watertown.
Parker, Walter S.,* . . .	3,780	Boston, . . .	Boston.
Parkinson, William D., . .	2,000	Waltham, . . .	Waltham.
Parlin, Frank E., . . .	2,200	Wollaston, . . .	Quincy.
Peaslee, Frank J., . . .	2,000	Revere, . . .	Revere.
Perkins, J. S., . . .	1,800	Canton, . . .	Canton.
Perkins, John W., . . .	2,500	Salem, . . .	Salem.
Peterson, Ellis,* . . .	3,780	Boston, . . .	Boston.
Pitman, J. Asbury, . . .	2,100	Marlborough, . . .	Marlborough.
Putney, Freeman, . . .	2,300	Gloucester, . . .	Gloucester.
Russell, B. B., . . .	2,700	Brockton, . . .	Brockton.

\* Supervisor, Boston.

## XXVIII. — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Safford, Adelbert L., . . .	\$1,800	Beverly, . . .	Beverly.
Seaver, Edwin P., . . .	6,000	Boston, . . .	Boston.
Small, Walter H., . . .	2,500	Chelsea, . . .	Chelsea.
Southworth, Gordon A., . .	3,000	Somerville, . . .	Somerville.
Stanger, Asa O., . . .	1,400	Falmouth, . . .	Falmouth.
Thompson, Thomas E., . .	2,000	Leominster, . . .	Leominster.
Thomson, Andrew S., . . .	1,400	North Weymouth, . .	Weymouth.
Turner, Alfred, . . .	1,500	Turner's Falls, . .	Montague.
Ward, W. Scott, . . .	1,800	Athol, . . .	Athol.
Whitecomb, Arthur K., . .	3,000	Lowell, . . .	Lowell.
White, A. Everett, . . .	1,500	Methuen, . . .	Methuen.
Wood, Judson I., . . .	2,000	Gardner, . . .	Gardner.

*Group 2. — Superintendents giving full time each to a group of two or more towns not aided by the State.*

Armstrong, George P., . . .	\$1,900	Belmont, . . .	Belmont, Manchester.
Fisher, Gilman C., . . .	1,800	Great Barrington, . .	Great Barrington, Lenox.*
Gibbs, David, . . .	1,750	Hudson, . . .	Groton, Hudson.
Hobbs, W. C., . . .	2,000	Whitman, . . .	Rockland, Whitman.
Howard, Nelson G., . . .	1,800	Hingham Centre, . .	Cohasset, Hingham, Hull.
Stevens, Charles E., . . .	2,000	Stoneham, . . .	Saugus, Stoneham.
Walratt, H. M., . . .	2,300	Needham, . . .	Needham, Winchester.

\* The only union in the State under sections 44 and 45, chapter 44, Public Statutes.

*Group 3. — Superintendents giving full time each to a group of towns aided by the State, — district superintendents.*

Adams, O. H., . . .	\$1,500	Becket, . . .	Becket, Chester, Middlefield, Washington.
Allen, H. L., . . .	1,500	Dalton, . . .	Cheshire, Dalton.
Anthony, John C., . . .	1,500	Wareham, . . .	Marion, Wareham.
Averill, Andrew P., . . .	1,500	Edgartown, . . .	Chilmark, Cottage City, Edgartown, Tisbury, West Tisbury.
Badger, Abner A., . . .	1,500	Walpole, . . .	Medfield, Walpole.
Bowman, Mortimer H., . .	1,500	Barre, . . .	Barre, Hardwick, Petersham.
Brick, Francis S., . . .	1,500	Agawam, . . .	Agawam, Granville, Southwick.
Call, Arthur D., . . .	1,500	Holliston, . . .	Holliston, Medway, Sherborn.

## XXVIII. — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendences.
Campbell, A. H., . . .	\$1,500	South Hadley Falls,	Granby, South Hadley.
Cartwright, W. O., . .	1,500	Georgetown, . . .	Georgetown, Groveland, Rowley.
Chace, Seth H., . . .	1,500	Harwich, . . .	Brewster, Eastham, Harwich, Orleans.
Chaffin, W. E., . . .	1,500	West Dennis, . . .	Dennis, Yarmouth.
Clay, Charles L., . . .	1,500	Harvard, . . .	Bolton, Boylston, Harvard, Shirley.
Cole, A. B., . . .	1,500	Plainville, . . .	Norton, Wrentham.
Collins, Arthur J., . .	1,500	Sheffield, . . .	Egremont, New Marlborough, Richmond, Sheffield, West Stockbridge.
Corlew, R. E., . . .	1,500	Cochituate, . . .	Dover, Sudbury, Wayland.
Cragin, W. N., . . .	1,500	Bedford, . . .	Bedford, Burlington, Lincoln, Wilmington.
Crocker, Winthrop N., .	1,500	North Dartmouth, .	Dartmouth, Westport.
Dixon, Edward, . . .	1,500	West Brookfield, .	New Braintree, Sturbridge, West Brookfield.
Flits, Edward P., . . .	1,650	Mansfield, . . .	Mansfield, Sharon, Stoughton.
Freeman, L. A., . . .	1,500	Foxborough, . . .	Foxborough, West Newbury.
Fuller, R. J., . . .	1,500	East Bridgewater, .	East Bridgewater, West Bridgewater, Raynham.
Gray, E. B., . . .	1,500	Fairhaven, . . .	Acushnet, Fairhaven, Matta- poisett.
Grout, Edgar H., . . .	1,500	Princeton, . . .	Princeton, Sterling, Westmin- ster.
Hall, C. P., . . .	1,500	Shelburne Falls, .	Buckland, Colrain, Shelburne.
Holmes, William H., Jr.,	1,500	Grafton, . . .	Grafton, Upton.
Howard, Elmer F., . .	1,600	Charlemont, . . .	Charlemont, Florida, Hawley, Monroe, Rowe.
Hoyt, W. A., . . .	1,500	North Brookfield, .	Brookfield, North Brookfield.
Irving, Arthur P., . . .	1,600	Ayer, . . .	Ayer, West Boylston.
Jones, Herbert J., . . .	1,500	Holden, . . .	Holden, Oakham, Paxton, Rutland.
Kendall, Frederick L., .	1,500	Chelmsford, . . .	Carlisle, Chelmsford, Dun- stable.
Knowlton, George H., .	1,500	South Swansea, .	Freetown, Seekonk, Swansea.
Knowlton, Junius C., .	1,800	Tewksbury, . . .	Dracut, North Reading, Tewksbury, Tyngsborough.
Lewis, Alvan R., . . .	1,500	Provincetown, .	Chatham, Provincetown, Well- fleet.
Locke, D. B., . . .	1,600	Winchendon, . . .	Lunenburg, Winchendon.
Long, William F., . .	1,500	Ashfield, . . .	Ashfield, Cummington, Goshen, Plainfield.
Lyman, C. S., . . .	1,600	Oxford, . . .	Dudley, Millbury, Oxford.
Mason, Lizzie A., . . .	1,500	Orange, . . .	Erving, Orange, Wendell.
Miller, W. D., . . .	1,600	Easthampton, . .	Easthampton, Southampton, Westhampton.
Morrell, James G., . .	1,500	Billerica, . . .	Billerica, Merrimac.
Palmer, Corwin F., . .	1,500	Northborough, .	Berlin, Northborough, Shrews- bury, Southborough.
Poland, Mary L., . . .	1,550	175 State Street, Springfield.	East Longmeadow, Hampden, Longmeadow, Ludlow, Wil- braham.
Pratt, Louis A., . . .	1,500	Williamsburg, .	Conway, Sunderland, Whately, Williamsburg.
Putney, C. E., . . .	1,500	Baldwinsville, .	Hubbardston, Phillipston, Roy- alston, Templeton.
Reed, William A., . . .	1,500	South Deerfield, .	Deerfield, Hatfield, Leverett.

## XXVIII. — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Record, Christopher A., . .	\$1,500	Assinippi, . .	Hanover, Hanson, Norwell.
Richardson, Herbert E., . .	1,500	Littleton, . . .	Acton, Littleton, Westford.
Robinson, Albert, . . .	1,500	Warren, . . .	Wales, Warren.
Sanderson, W. H., . . .	2,000	Bridgewater, . .	Ablington, Bridgewater.
Sherman, Elmer E., . . .	1,650	Hopedale, . . .	Bellingham, Hopedale, Mendon.
Sherman, Frank J., . . .	1,500	Monson, . . .	Brimfield, Monson.
Thompson, Victor V., . . .	1,500	Hopkinton, . . .	Ashland, Hopkinton.
Tice, Burt J., . . .	1,500	Sandwich, . . .	Bourne, Mashpee, Sandwich.
Warren, Julius E., . . .	1,500	Northfield, . . .	Gill, Northfield, Warwick.
Wheeler, Ulysses G., . . .	2,000	Wakefield, . . .	Lynnfield, Wakefield.
Whitney, Fairfield, . . .	1,500	Townsend, . . .	Ashby, Townsend.
Willard, Edgar L., . . .	1,500	Marshfield Hills, .	Duxbury, Marshfield, Scituate.

*Group 4. — Superintendents giving part time each to a single town.*

Chickering, George E., . .	\$600	81 Berkeley Street, Lawrence.	North Andover.
Gifford, John B., . . .	800	Marblehead, . .	Marblehead.
Lincoln, Mary L., . . .	1,000	Rockport, . . .	Rockport.
Moulton, J. Sidney, . . .	100	Stow, . . .	Stow.
Stone, Melville A., . . .	1,000	11 Lowell Street, Reading.	Reading.

*Group 5. — High school principals also serving as superintendents.*

Bates, Charles H., . . .	\$1,800	Uxbridge, . . .	Uxbridge.
Buck, Jonathan I., . . .	1,900	Lexington, . . .	Lexington.
Carroll, John, . . .	1,100	Avon, . . .	Avon.
Childs, H. C., . . .	1,700	Swampscott, . . .	Swampscott.
Daniels, E. D., . . .	1,800	Franklin, . . .	Franklin.
Douglas, Frank A.,* . . .	1,500	Winthrop, . . .	Winthrop.
Eaton, Charles M., . . .	1,700	Weston, . . .	Weston.
Eaton, William L., . . .	2,500	Concord, . . .	Concord.
Hallett, S. W., . . .	2,000	Ware, . . .	Ware.
Melcher, S. A., . . .	2,100	Whitinsville, . .	Northbridge.
Morse, A. H., . . .	1,800	Webster, . . .	Webster.
Perrin, Marshall L.,† . . .	1,500	Wellesley Hills, .	Wellesley.
Richards, Ansel S., . . .	1,250	Kingston, . . .	Kingston.

\* Principal of grammar school.

† Professor at Boston University.

## XXVIII. — Concluded.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Rogers, Alfred W., . . .	\$1,800	Stockbridge, . . .	Stockbridge.
Sutcliffe, Frank S.,* . . .	2,200	Arlington, . . .	Arlington.
Thompson, A. C., . . .	2,000	Palmer, . . .	Palmer.
Tower, Alfred O., . . .	1,400	Pepperell, . . .	Pepperell.
Tuttle, O. A., . . .	1,250	Nahant, . . .	Nahant.
Wagg, A. P., . . .	1,400	Norwood, . . .	Norwood.
Waldron, H. C., . . .	1,800	Westborough, . . .	Westborough.
Whipple, D. Henry, . . .	900	Millis, . . .	Millis.
White, J. Henry, . . .	1,100	Maynard, . . .	Maynard.

\* Principal of grammar school.

*Group 6. — Members of school committees returned as superintendents.*

Littlefield, Mrs. Jennie A., . . .	\$50	Boxborough, . . .	Boxborough.
Locke, Calvin S., . . .	50	Westwood, . . .	Westwood.
Shank, Charles H., . . .	200	North Dighton, . . .	Dighton.
Tiffany, L. Belle, . . .	100	Russell, . . .	Blandford.

*Summary of the Foregoing Groups.* — Certain facts of the foregoing groups may be summarized as follows : —

GROUPS.	Number of towns.	Number of superintendents.	Salaries.
Group 1, . . . . .	69	77	\$177,330
Group 2, . . . . .	15	7	13,550
Group 3, . . . . .	170	57	87,650
Group 4, . . . . .	5	5	3,500
Group 5, . . . . .	22	22	36,500
Group 6, . . . . .	4	4	400
Totals, . . . . .	285	172	\$318,930

*Superintendents by Counties and Towns.* — For convenience of reference, the towns that employ superintendents are given with the names and addresses of these officers for the several counties of the State in the following table : —



XXIX. *Table of towns and cities employing superintendents of schools, arranged by counties.*

BY COUNTIES.	Superintendents.	Addresses.
<i>Barnstable.</i>		
1. Barnstable, . . .	F. W. Kingman, . . .	Hyannis.
2. Bourne, . . .	Burt J. Tice, . . .	Sandwich.
3. Brewster, . . .	Seth H. Chace, . . .	Harwich.
4. Chatham, . . .	Alvan R. Lewis, . . .	Provincetown.
5. Dennis, . . .	W. E. Chaffin, . . .	West Dennis.
6. Eastham, . . .	Seth H. Chace, . . .	Harwich.
7. Falmouth, . . .	Asa O. Stanger, . . .	Falmouth.
8. Harwich, . . .	Seth H. Chace, . . .	Harwich.
9. Mashpee, . . .	Burt J. Tice, . . .	Sandwich.
10. Orleans, . . .	Seth H. Chace, . . .	Harwich.
11. Provincetown, . . .	Alvan R. Lewis, . . .	Provincetown.
12. Sandwich, . . .	Burt J. Tice, . . .	Sandwich.
13. Wellfleet, . . .	Alvan R. Lewis, . . .	Provincetown.
14. Yarmouth, . . .	W. E. Chaffin, . . .	West Dennis.
<i>Berkshire.</i>		
1. Adams, . . .	John C. Gray, . . .	Adams.
2. Becket, . . .	O. H. Adams, . . .	Becket.
3. Cheshire, . . .	H. L. Allen, . . .	Dalton.
4. Dalton, . . .	H. L. Allen, . . .	Dalton.
5. Egremont, . . .	Arthur J. Collins, . . .	Sheffield.
6. Florida, . . .	Elmer F. Howard, . . .	Charlemont.
7. Great Barrington, . . .	Gilman C. Fisher, . . .	Great Barrington.
8. Lenox, . . .	Gilman C. Fisher, . . .	Great Barrington.
9. New Marlborough, . . .	Arthur J. Collins, . . .	Sheffield.
10. North Adams, . . .	I. Freeman Hall, . . .	North Adams.
11. Pittsfield, . . .	Eugene Bouton, . . .	Pittsfield.
12. Richmond, . . .	Arthur J. Collins, . . .	Sheffield.
13. Sheffield, . . .	Arthur J. Collins, . . .	Sheffield.
14. Stockbridge, . . .	Alfred W. Rogers, . . .	Stockbridge.
15. Washington, . . .	O. H. Adams, . . .	Becket.
16. West Stockbridge, . . .	Arthur J. Collins, . . .	Sheffield.
17. Williamstown, . . .	Walter G. Mitchell, . . .	Williamstown.
<i>Bristol.</i>		
1. Acushnet, . . .	E. B. Gray, . . .	Fairhaven.
2. Attleborough, . . .	W. P. Kelly, . . .	Attleborough.
3. Dartmouth, . . .	Winthrop N. Crocker, . . .	North Dartmouth.
4. Dighton, . . .	Charles H. Shank, . . .	North Dighton.
5. Easton, . . .	Osmon C. Evans, . . .	North Easton.
6. Fairhaven, . . .	E. B. Gray, . . .	Fairhaven.
7. Fall River, . . .	William C. Bates, . . .	Fall River.
8. Freetown, . . .	George H. Knowlton, . . .	South Swansea.
9. Mansfield, . . .	Edward P. Fitts, . . .	Mansfield.
10. New Bedford, . . .	William E. Hatch, . . .	New Bedford.
11. North Attleborough, . . .	James W. Brehaut, . . .	North Attleborough.
12. Norton, . . .	A. B. Cole, . . .	Plainville.
13. Raynham, . . .	R. J. Fuller, . . .	East Bridgewater.
14. Seekonk, . . .	George H. Knowlton, . . .	South Swansea.

XXIX. *Table of towns and cities employing superintendents, etc. —*  
Continued.

BY COUNTIES.	Superintendents.	Addresses.
<i>Bristol — Con.</i>		
15. Swansea, . . .	George H. Knowlton, . . .	South Swansea.
16. Taunton, . . .	C. F. Boyden, . . .	Taunton.
17. Westport, . . .	Winthrop N. Crocker, . . .	North Dartmouth.
<i>Dukes.</i>		
1. Chilmark, . . .	Andrew P. Averill, . . .	Edgartown.
2. Cottage City, . . .	Andrew P. Averill, . . .	Edgartown.
3. Edgartown, . . .	Andrew P. Averill, . . .	Edgartown.
4. Tisbury, . . .	Andrew P. Averill, . . .	Edgartown.
5. West Tisbury, . . .	Andrew P. Averill, . . .	Edgartown.
<i>Essex.</i>		
1. Andover, . . .	George E. Johnson, . . .	Andover.
2. Beverly, . . .	Adelbert L. Safford, . . .	Beverly.
3. Georgetown, . . .	W. O. Cartwright, . . .	Georgetown.
4. Gloucester, . . .	Freeman Putney, . . .	Gloucester.
5. Groveland, . . .	W. O. Cartwright, . . .	Georgetown.
6. Haverhill, . . .	Roscoe D. McKeen, . . .	Haverhill.
7. Lawrence, . . .	John E. Burke, . . .	Lawrence.
8. Lynn, . . .	Orsamus B. Bruce, . . .	Lynn.
9. Lynnfield, . . .	Ulysses G. Wheeler, . . .	Wakefield.
10. Manchester, . . .	George P. Armstrong, . . .	Belmont.
11. Marblehead, . . .	John B. Gifford, . . .	Marblehead.
12. Merrimac, . . .	James G. Morrell, . . .	Billerica.
13. Methuen, . . .	A. Everett White, . . .	Methuen.
14. Nahant, . . .	O. A. Tuttle, . . .	Nahant.
15. Newburyport, . . .	William P. Lunt, . . .	Newburyport.
16. North Andover, . . .	George E. Chickering, . . .	Lawrence.
17. Peabody, . . .	Lester L. Burrington, . . .	Peabody.
18. Rockport, . . .	Mary L. Lincoln, . . .	Rockport.
19. Rowley, . . .	W. O. Cartwright, . . .	Georgetown.
20. Salem, . . .	John W. Perkins, . . .	Salem.
21. Saugus, . . .	Charles E. Stevens, . . .	Stoneham.
22. Swampscott, . . .	H. C. Childs, . . .	Swampscott.
23. West Newbury, . . .	L. A. Freeman, . . .	Foxborough.
<i>Franklin.</i>		
1. Ashfield, . . .	William F. Long, . . .	Ashfield.
2. Buckland, . . .	C. P. Hall, . . .	Shelburne Falls.
3. Charlemont, . . .	Elmer F. Howard, . . .	Charlemont.
4. Colrain, . . .	C. P. Hall, . . .	Shelburne Falls.
5. Conway, . . .	Louis A. Pratt, . . .	Williamsburg.
6. Deerfield, . . .	William A. Reed, . . .	South Deerfield.
7. Erving, . . .	Lizzie A. Mason, . . .	Orange.
8. Gill, . . .	Julius E. Warren, . . .	Northfield.
9. Greenfield, . . .	G. H. Danforth, . . .	Greenfield.
10. Hawley, . . .	Elmer F. Howard, . . .	Charlemont.
11. Leverett, . . .	William A. Reed, . . .	South Deerfield.
12. Monroe, . . .	Elmer F. Howard, . . .	Charlemont.
13. Montague, . . .	Alfred Turner, . . .	Turner's Falls.

XXIX. *Table of towns and cities employing superintendents, etc. —*  
Continued.

BY COUNTIES.	Superintendents.	Addresses.
<i>Franklin — Con.</i>		
14. Northfield, . . .	Julius E. Warren, . . .	Northfield.
15. Orange, . . .	Lizzie A. Mason, . . .	Orange.
16. Rowe, . . .	Elmer F. Howard, . . .	Charlemont
17. Shelburne, . . .	C. P. Hall, . . .	Shelburne Falls.
18. Sunderland, . . .	Louis A. Pratt, . . .	Williamsburg.
19. Warwick, . . .	Julius E. Warren, . . .	Northfield.
20. Wendell, . . .	Lizzie A. Mason, . . .	Orange.
21. Whately, . . .	Louis A. Pratt, . . .	Williamsburg.
<i>Hampden.</i>		
1. Agawam, . . .	Francis S. Brick, . . .	Agawam.
2. Blandford, . . .	L. Belle Tiffany, . . .	Russell.
3. Brimfield, . . .	Frank J. Sherman, . . .	Monson.
4. Chester, . . .	O. H. Adams, . . .	Becket.
5. Chicopee, . . .	C. A. Brodeur, . . .	Chicopee Falls.
6. East Longmeadow, . . .	Mary L. Poland, . . .	Springfield.
7. Granville, . . .	Francis S. Brick, . . .	Agawam.
8. Hampden, . . .	Mary L. Poland, . . .	Springfield.
9. Holyoke, . . .	Louis P. Nash, . . .	Holyoke.
10. Longmeadow, . . .	Mary L. Poland, . . .	Springfield.
11. Ludlow, . . .	Mary L. Poland, . . .	Springfield.
12. Monson, . . .	Frank J. Sherman, . . .	Monson.
13. Palmer, . . .	A. C. Thompson, . . .	Palmer.
14. Southwick, . . .	Francis S. Brick, . . .	Agawam.
15. Springfield, . . .	Thomas M. Balliet, . . .	Springfield.
16. Wales, . . .	Albert Robinson, . . .	Warren.
17. West Springfield, . . .	C. E. Brockway, . . .	West Springfield.
18. Westfield, . . .	Stanley H. Holmes, . . .	Westfield.
19. Wilbraham, . . .	Mary L. Poland, . . .	Springfield.
<i>Hampshire.</i>		
1. Amherst, . . .	A. L. Hardy, . . .	Amherst.
2. Cummington, . . .	William F. Long, . . .	Ashfield.
3. Easthampton, . . .	W. D. Miller, . . .	Easthampton.
4. Goshen, . . .	William F. Long, . . .	Ashfield.
5. Granby, . . .	A. H. Campbell, . . .	South Hadley Falls.
6. Hatfield, . . .	William A. Reed, . . .	South Deerfield.
7. Middlefield, . . .	O. H. Adams, . . .	Becket.
8. Northampton, . . .	J. H. Carfrey, . . .	Northampton.
9. Plainfield, . . .	William F. Long, . . .	Ashfield.
10. South Hadley, . . .	A. H. Campbell, . . .	South Hadley Falls.
11. Southampton, . . .	W. D. Miller, . . .	Easthampton.
12. Ware, . . .	S. W. Hallett, . . .	Ware.
13. Westhampton, . . .	W. D. Miller, . . .	Easthampton.
14. Williamsburg, . . .	Louis A. Pratt, . . .	Williamsburg.
<i>Middlesex.</i>		
1. Acton, . . .	Herbert E. Richardson, . . .	Littleton.
2. Arlington, . . .	Frank S. Sutcliffe, . . .	Arlington.
3. Ashby, . . .	Fairfield Whitney, . . .	Townsend.

XXIX. *Table of towns and cities employing superintendents, etc. —*  
Continued.

BY COUNTIES.	Superintendents.	Addresses.
<i>Middlesex — Con.</i>		
4. Ashland, . . .	Victor V. Thompson, . . .	Hopkinton.
5. Ayer, . . .	Arthur P. Irving, . . .	Ayer.
6. Bedford, . . .	W. N. Cragin, . . .	Bedford.
7. Belmont, . . .	George P. Armstrong, . . .	Belmont.
8. Billerica, . . .	James G. Morrell, . . .	Billerica.
9. Boxborough, . . .	Mrs. Jennie A. Littlefield, . . .	Boxborough.
10. Burlington, . . .	W. N. Cragin, . . .	Bedford.
11. Cambridge, . . .	Francis Cogswell, . . .	Cambridge.
Cambridge, . . .	Mary L. Lewis, Assistant, . . .	Cambridge.
12. Carlisle, . . .	Frederick L. Kendall, . . .	Chelmsford.
13. Chelmsford, . . .	Frederick L. Kendall, . . .	Chelmsford.
14. Concord, . . .	William L. Eaton, . . .	Concord.
15. Dracut, . . .	Junius C. Knowlton, . . .	Tewksbury.
16. Dunstable, . . .	Frederick L. Kendall, . . .	Chelmsford.
17. Everett, . . .	Randall J. Condon, . . .	Everett.
18. Framingham, . . .	S. F. Blodgett, . . .	South Framingham.
19. Groton, . . .	David Gibbs, . . .	Hudson.
20. Holliston, . . .	Arthur D. Call, . . .	Holliston.
21. Hopkinton, . . .	Victor V. Thompson, . . .	Hopkinton.
22. Hudson, . . .	David Gibbs, . . .	Hudson.
23. Lexington, . . .	Jonathan I. Buck, . . .	Lexington.
24. Lincoln, . . .	W. N. Cragin, . . .	Bedford.
25. Littleton, . . .	Herbert E. Richardson, . . .	Littleton.
26. Lowell, . . .	Arthur K. Whitcomb, . . .	Lowell.
27. Malden, . . .	George E. Gay, . . .	Malden.
28. Marlborough, . . .	J. Asbury Pitman, . . .	Marlborough.
29. Maynard, . . .	J. Henry White, . . .	Maynard.
30. Medford, . . .	C. H. Morss, . . .	West Medford.
31. Melrose, . . .	F. H. Nickerson, . . .	Melrose.
32. Natick, . . .	A. L. Barbour, . . .	Natick.
33. Newton, . . .	A. B. Fifield, . . .	Newtonville.
34. North Reading, . . .	Junius C. Knowlton, . . .	Tewksbury.
35. Pepperell, . . .	Alfred O. Tower, . . .	Pepperell.
36. Reading, . . .	Melville A. Stone, . . .	Reading.
37. Sherborn, . . .	Arthur D. Call, . . .	Holliston.
38. Shirley, . . .	Charles L. Clay, . . .	Harvard.
39. Somerville, . . .	Gordon A. Southworth, . . .	Somerville.
40. Stoneham, . . .	Charles E. Stevens, . . .	Stoneham.
41. Stow, . . .	J. Sidney Moulton, . . .	Stow.
42. Sudbury, . . .	R. E. Corlew, . . .	Cochituate.
43. Tewksbury, . . .	Junius C. Knowlton, . . .	Tewksbury.
44. Townsend, . . .	Fairfield Whitney, . . .	Townsend.
45. Tyngsborough, . . .	Junius C. Knowlton, . . .	Tewksbury.
46. Wakefield, . . .	Ulysses G. Wheeler, . . .	Wakefield.
47. Waltham, . . .	William D. Parkinson, . . .	Waltham.
48. Watertown, . . .	Frank R. Page, . . .	Watertown.
49. Wayland, . . .	R. E. Corlew, . . .	Cochituate.
50. Westford, . . .	Herbert E. Richardson, . . .	Littleton.
51. Weston, . . .	Charles M. Eaton, . . .	Weston.
52. Wilmington, . . .	W. N. Cragin, . . .	Bedford.

XXIX. *Table of towns and cities employing superintendents, etc.* —  
Continued.

BY COUNTIES.	Superintendents.	Addresses.
<i>Middlesex — Con.</i>		
53. Winchester, . . .	H. M. Walradt, . . .	Needham.
54. Woburn, . . .	Thomas Emerson, . . .	Woburn.
<i>Norfolk.</i>		
1. Avon, . . .	John Carroll, . . .	Avon.
2. Bellingham, . . .	Elmer E. Sherman, . . .	Hopedale.
3. Braintree, . . .	Irving W. Horne, . . .	Braintree.
4. Brookline, . . .	George I. Aldrich, . . .	Brookline.
5. Canton, . . .	J. S. Perkins, . . .	Canton.
6. Cohasset, . . .	Nelson G. Howard, . . .	Hingham Centre.
7. Dedham, . . .	Roderick W. Hine, . . .	Dedham.
8. Dover, . . .	R. E. Corlew, . . .	Cochituate.
9. Foxborough, . . .	L. A. Freeman, . . .	Foxborough.
10. Franklin, . . .	E. D. Daniels, . . .	Franklin.
11. Hyde Park, . . .	Frank O. Draper, . . .	Hyde Park.
12. Medfield, . . .	Abner A. Badger, . . .	Walpole.
13. Medway, . . .	Arthur D. Call, . . .	Holliston.
14. Millis, . . .	D. Henry Whipple, . . .	Millis.
15. Milton, . . .	D. P. Dame, . . .	Mattapan.
16. Needham, . . .	H. M. Walradt, . . .	Needham.
17. Norwood, . . .	A. P. Wagg, . . .	Norwood.
18. Quincy, . . .	Frank E. Parlin, . . .	Wollaston.
19. Sharon, . . .	Edward P. Fitts, . . .	Mansfield.
20. Stoughton, . . .	Edward P. Fitts, . . .	Mansfield.
21. Walpole, . . .	Abner A. Badger, . . .	Walpole.
22. Wellesley, . . .	Marshall L. Perrin, . . .	Wellesley Hills.
23. Westwood, . . .	Calvin S. Locke, . . .	Westwood.
24. Weymouth, . . .	Andrew S. Thomson, . . .	North Weymouth.
25. Wrentham, . . .	A. B. Cole, . . .	Plainville.
<i>Plymouth.</i>		
1. Abington, . . .	W. H. Sanderson, . . .	Bridgewater.
2. Bridgewater, . . .	W. H. Sanderson, . . .	Bridgewater.
3. Brockton, . . .	B. B. Russell, . . .	Brockton.
Brockton, . . .	Harriet S. Hayward, Ass't,	Brockton.
4. Duxbury, . . .	Edgar L. Willard, . . .	Marshfield Hills.
5. East Bridgewater, . . .	R. J. Fuller, . . .	East Bridgewater.
6. Hanover, . . .	Christopher A. Record, . . .	Assinippi.
7. Hanson, . . .	Christopher A. Record, . . .	Assinippi.
8. Hingham, . . .	Nelson G. Howard, . . .	Hingham Centre.
9. Hull, . . .	Nelson G. Howard, . . .	Hingham Centre.
10. Kingston, . . .	Ansel S. Richards, . . .	Kingston.
11. Marion, . . .	John C. Anthony, . . .	Wareham.
12. Marshfield, . . .	Edgar L. Willard, . . .	Marshfield Hills.
13. Mattapoisett, . . .	E. B. Gray, . . .	Fairhaven.
14. Middleborough, . . .	Asher J. Jacoby, . . .	Middleborough.
15. Norwell, . . .	Christopher A. Record, . . .	Assinippi.
16. Plymouth, . . .	Frank J. Heavens, . . .	Plymouth.
17. Rockland, . . .	W. C. Hobbs, . . .	Whitman.
18. Scituate, . . .	Edgar L. Willard, . . .	Marshfield Hills.

XXIX. *Table of towns and cities employing superintendents, etc. —*  
Continued.

BY COUNTIES.	Superintendents.	Addresses.
<i>Plymouth — Con.</i>		
19. Wareham, . . .	John C. Anthony, . . .	Wareham.
20. West Bridgewater, . . .	R. J. Fuller, . . .	East Bridgewater.
21. Whitman, . . .	W. C. Hobbs, . . .	Whitman.
<i>Suffolk.</i>		
1. Boston, . . .	Edwin P. Seaver, . . .	Boston.
Boston, . . .	Ellis Peterson, Supervisor, . . .	Boston.
Boston, . . .	Robert C. Metcalf, " . . .	Boston.
Boston, . . .	George H. Conley, " . . .	Boston.
Boston, . . .	George H. Martin, " . . .	Boston.
Boston, . . .	Walter S. Parker, " . . .	Boston.
Boston, . . .	Sarah L. Arnold, " . . .	Boston.
2. Chelsea, . . .	Walter H. Small, . . .	Chelsea.
3. Revere, . . .	Frank J. Peaslee, . . .	Revere.
4. Winthrop, . . .	Frank A. Douglas, . . .	Winthrop.
<i>Worcester.</i>		
1. Athol, . . .	W. Scott Ward, . . .	Athol.
2. Barre, . . .	Mortimer H. Bowman, . . .	Barre.
3. Berlin, . . .	Corwin F. Palmer, . . .	Northborough.
4. Blackstone, . . .	Josiah B. Davis, . . .	Millville.
5. Bolton, . . .	Charles L. Clay, . . .	Harvard.
6. Boylston, . . .	Charles L. Clay, . . .	Harvard.
7. Brookfield, . . .	W. A. Hoyt, . . .	North Brookfield.
8. Clinton, . . .	Charles L. Hunt, . . .	Clinton.
9. Dudley, . . .	C. S. Lyman, . . .	Oxford.
10. Fitchburg, . . .	Joseph G. Edgerly, . . .	Fitchburg.
11. Gardner, . . .	Judson I. Wood, . . .	Gardner.
12. Grafton, . . .	William H. Holmes, Jr., . . .	Grafton.
13. Hardwick, . . .	Mortimer H. Bowman, . . .	Barre.
14. Harvard, . . .	Charles L. Clay, . . .	Harvard.
15. Holden, . . .	Herbert J. Jones, . . .	Holden.
16. Hopedale, . . .	Elmer E. Sherman, . . .	Hopedale.
17. Hubbardston, . . .	C. E. Putney, . . .	Baldwinsville.
18. Leominster, . . .	Thomas E. Thompson, . . .	Leominster.
19. Lunenburg, . . .	D. B. Locke, . . .	Winchendon.
20. Mendon, . . .	Elmer E. Sherman, . . .	Hopedale.
21. Milford, . . .	Charles W. Haley, . . .	Milford.
22. Millbury, . . .	C. S. Lyman, . . .	Oxford.
23. New Braintree, . . .	Edward Dixon, . . .	West Brookfield.
24. North Brookfield, . . .	W. A. Hoyt, . . .	North Brookfield.
25. Northborough, . . .	Corwin F. Palmer, . . .	Northborough.
26. Northbridge, . . .	S. A. Melcher, . . .	Whitinsville.
27. Oakham, . . .	Herbert J. Jones, . . .	Holden.
28. Oxford, . . .	C. S. Lyman, . . .	Oxford.
29. Paxton, . . .	Herbert J. Jones, . . .	Holden.
30. Petersham, . . .	Mortimer H. Bowman, . . .	Barre.
31. Phillipston, . . .	C. E. Putney, . . .	Baldwinsville.
32. Princeton, . . .	Edgar H. Grout, . . .	Princeton.
33. Royalston, . . .	C. E. Putney, . . .	Baldwinsville.

XXIX. *Table of towns and cities employing superintendents, etc. —*  
*Concluded.*

BY COUNTIES.	Superintendents.	Addresses.
<i>Worcester — Con.</i>		
34. Rutland, . . .	Herbert J. Jones, . . .	Holden.
35. Shrewsbury, . . .	Corwin F. Palmer, . . .	Northborough.
36. Southborough, . . .	Corwin F. Palmer, . . .	Northborough.
37. Southbridge, . . .	John T. Clarke, . . .	Southbridge.
38. Spencer, . . .	George I. Clapp, . . .	Spencer.
39. Sterling, . . .	Edgar H. Grout, . . .	Princeton.
40. Sturbridge, . . .	Edward Dixon, . . .	West Brookfield.
41. Templeton, . . .	C. E. Putney, . . .	Baldwinsville.
42. Upton, . . .	William H. Holmes, Jr., . . .	Grafton.
43. Uxbridge, . . .	Charles H. Bates, . . .	Uxbridge.
44. Warren, . . .	Albert Robinson, . . .	Warren.
45. Webster, . . .	A. H. Morse, . . .	Webster.
46. West Boylston, . . .	Arthur P. Irving, . . .	Ayer.
47. West Brookfield, . . .	Edward Dixon, . . .	West Brookfield.
48. Westborough, . . .	H. C. Waldron, . . .	Westborough.
49. Westminster, . . .	Edgar H. Grout, . . .	Princeton.
50. Winchendon, . . .	D. B. Locke, . . .	Winchendon.
51. Worcester, . . .	C. F. Carroll, . . .	Worcester.

*Summary relative to the Extent of Supervision by Superintendents of Schools. —* From Table XXIX. it appears : —

1. That 285 towns and cities are employing superintendents, as against 270 a year ago.

2. That 9,890 schools are under superintendents, as against 9,409 a year ago.

3. That 457,628 public school children are under superintendents, as against 451,543 a year ago.

4. That 167 towns are in superintendency districts, as against 152 a year ago.

5. That 95 per cent. of all the public schools in the State and 96 per cent. of all their pupils are under superintendents.

In this remarkable voluntary growth, now covering nearly the entire State, there is abundant justification of the action of the last Legislature in putting this kind of supervision on a universal and mandatory basis.

XXX. Table showing the extent to which superintendents of schools have been employed in the several counties of the State.

COUNTIES.	NUMBER OF TOWNS NOT HAVING SUPERINTENDENTS.		NUMBER OF TOWNS WHICH EMPLOY SUPERINTENDENTS.							
	Number.	Per cent	UNDER LAWS OF —			Total towns.	PUBLIC SCHOOLS.		NUMBER OF PUPILS.	
			1854.	1870.	1888-98.		Number.	Per cent.	Number.	Per cent.
Barnstable,	1	6.6	2	-	12	14	148	96.1	4,852	96.9
Berkshire,	15	46.8	5	2	10	17	396	82.6	16,148	88.6
Bristol,	3	15.0	8	-	9	17	799	96.4	40,206	97.8
Dukes,	2	28.5	-	-	5	5	22	91.7	593	89.5
Essex,	11	32.3	17	-	6	23	1,119	89.5	50,394	90.5
Franklin,	5	19.2	2	-	19	21	231	87.1	7,157	92.5
Hampden,	4	17.3	7	-	12	19	669	97.0	29,746	99.1
Hampshire,	9	39.1	3	-	11	14	226	75.0	8,363	81.6
Middlesex,	-	-	30	-	24	54	2,115	100.0	100,143	100.0
Nantucket,	1	100.0	-	-	-	-	-	-	-	-
Norfolk,	3	10.7	16	-	9	25	625	94.9	27,103	95.0
Plymouth,	6	22.2	8	-	13	21	458	93.4	19,154	95.6
Suffolk,	-	-	4	-	-	4	1,762	100.0	97,177	100.0
Worcester,	8	13.5	14	-	37	51	1,320	93.2	56,592	94.2
Totals,	68	19.2	116	2	167	285	9,890	94.7	457,628	96.3



*Qualifications of the Superintendent.*—The mere fact of employing a superintendent does not in itself insure a wise administration of the schools. It is of the utmost consequence that there should be employed a competent superintendent. With inadequate qualifications, he cannot hope to gain the confidence of the teachers, the committee and the public, and at the same time serve the schools courageously and well. It comes clearly within the jurisdiction of the State to set a minimum standard of qualifications for superintendents, should it deem it expedient to do so. In the case of district superintendents, half of whose salary is paid by the State, the State is especially concerned that its money should be judiciously expended. It may become its duty in the not distant future to provide, without otherwise impairing a district's freedom of choice, that the candidates from whom the superintendent is to be chosen shall be approved as properly qualified in scholarship, character, experience and wisdom to discharge the high and diversified duties of the office. As a first step, let certificates of qualification be issued by the State to such persons as are able to show their fitness to serve as district superintendents. Let the plan begin on a voluntary basis, leaving candidates and districts free to use it, or not. Let it stand or fall on its merits, after the customary Massachusetts way. If it stands, there will be time enough for the consideration of such requirements as developing conditions suggest. It should not be overlooked that the voluntary basis favors the setting of higher standards of superintendency qualifications than the compulsory, — an important compensation for certain disadvantages that pertain to any plan that invites rather than demands.

*Supervision by Superintendents as related to Supervision by School Committees.*—Notwithstanding the occasional failures of superintendents to meet the reasonable expectations of school committees and the public, it continues to be an impressive fact — nearly the entire State has voluntarily borne witness to it — that a capable superintendent is a power for good with the schools. The secretary in this connection deems it important to say again what he said a year ago, that “stronger committees, as a rule, are found; they more willingly render

unpaid service ; better teachers are nominated and employed ; better methods prevail ; better equipment is secured ; a stronger uplifting force is felt throughout the system, — where the good superintendent is found and trusted. In all this there is not the slightest reflection upon those men and women who, in places without superintendents, have nevertheless better served the schools than an inferior superintendent could possibly have done. Indeed, it is better, in the argument for expert supervision, to dismiss at once all comparisons of able committees with poor superintendents or of poor committees with able superintendents. Each of these conjunctions of superiority with inferiority is abnormal and undesirable. The right comparison to make is that between good men and women, of general intelligence and ability, who cannot be expected as members of school committees to give a large part of their strength and thought and time to the schools, and good men and women, of general intelligence and ability, who have specially trained themselves by study and experience to deal with school questions, particularly with those of an educational character, and who give all their time to this difficult and important work. Ideal supervision in Massachusetts now requires that each of the foregoing kinds shall be supplemented by the other ; and that the people everywhere shall press for the highest attainable service on both sides, and press all the harder for it, wherever incompetency has brought either kind into disrepute. Shall a school cease to exist because a teacher has failed therein, or a school committee because its members are a discredit to the town, or a superintendency because its incumbent does not adequately fill it ? If good teachers, good committee members and good superintendents are worth having, — and that is the verdict of ninety-five per cent. of our people, — by all means stand by the permanency and universality of the offices, and fight for better holders thereof."

#### THE NORMAL SCHOOLS.

*Order of Organization.* — The following list gives all the normal schools of the State in the order of their opening : —

NORMAL SCHOOLS.	First opened.	Present principal.
Framingham, . . .	July 3, 1839, at Lexington,	Henry Whittemore.
Westfield, . . .	Sept. 4, 1839, at Barre, .	Charles S. Chapin.
Bridgewater, . . .	Sept. 9, 1840, . . .	Albert G. Boyden.
Salem, . . .	Sept. 14, 1854, . . .	Walter P. Beckwith.
Normal Art, Boston, .	Nov. 11, 1873, . . .	George H. Bartlett.
Worcester, . . .	Sept. 15, 1874, . . .	E. Harlow Russell.
Fitchburg, . . .	Sept. 11, 1895, . . .	John G. Thompson.
North Adams, . . .	Feb. 1, 1897, . . .	Frank F. Murdock.
Barnstable (Hyannis),	Sept. 9, 1897, . . .	William A. Baldwin.
Lowell, . . .	Oct. 4, 1897, . . .	Frank F. Coburn.

*Admissions under the New Standard.* — In 1896 the standard of admission to the normal schools was raised. Candidates were required for the first time to be graduates of high schools, or to have received the equivalent of a high school training, and to pass an examination in high school subjects. For the last ten years of the old policy the average number of admissions, excluding those to the Normal Art School, was 420; for the five years of the new policy, 635, — a gain of 51 per cent. But this statement does not bring out the full measure of the gain, since the first year of the new policy showed a loss of 31 in the number of admissions, as compared with the average for the preceding ten years, — a loss that was the natural and not unexpected result of so marked a raising of the admission standard. It was not until the second year that the tide turned. The average number of admissions for the second and subsequent years, the Normal Art School still excluded, was 697, — a gain of 66 per cent. over the last ten years of the old policy and of 79 per cent. over the first year of the new. The following statement shows the data on which the percentages are based: —

EXAMINATIONS FOR ADMISSION.	Number examined.	ADMITTED TO ALL CLASSES.		Membership of all the schools December 1.
		Normal art school excluded.	Normal art school included.	
June and September, 1896, .	—	389	456	1,123*
June and September, 1897, .	843	713	780	1,388
June and September, 1898, .	852	654	743	1,572
June and September, 1899, .	858	703	779	1,624
June and September, 1900, .	950	718	819	1,643

\* Whole number of different pupils during the year 1896-97.

These figures mean that the normal schools have taken an increased hold upon the confidence of the public. The secret of this gratifying gain is to be found largely in the following facts : —

1. The raising of the standard of admission so that the normal schools rank distinctly above the high schools and, so far as their courses extend, with the colleges.

2. The establishment of the new normal schools, whose attendance has been growing without reducing that of the old schools.

3. The extension of facilities for practice in teaching.

4. The strengthening conviction of the public that the teacher needs not only a certain measure of native fitness for his work but also a certain measure of special preparation, — a conviction to which the normal schools have made important contributions and the demands of which they are meeting better than ever before.

*Normal School Data for the Past Year.* — Table XXXI. on the following page tells its own story. The total number of different pupils for the year ending in June, 1900, was 1,712, — the largest number in the history of the schools; the total number of graduates, 537, — also the highest record in the history of the schools. The attendance at any one time was never larger than on Dec. 1, 1900, when it reached 1,643. Of the 11,571 graduates of the schools since 1839, 4,905, or 42 per cent., are now teaching in the public schools of Massachusetts. As to the remaining 6,666 graduates, some are in

XXXI. Table showing admissions and attendance for 1900, with other normal school data.

NORMAL SCHOOLS.	TEACHERS IN NORMAL SCHOOLS.		TEACHERS IN MODEL AND PRACTICE SCHOOLS.		Examined for admission in 1900.	ADMITTED TO —		NUMBER OF DIFFERENT STUDENTS FOR 1899-1900.			ATTENDANCE DEC. 1, 1900.			Number of graduates in 1900.	Different students from the beginning.	Graduates from the beginning.
	Men.	Women.	Men.	Women.		Entering class.	Higher or special classes.	Men.	Women.	Total.	Men.	Women.	Total.			
Barnstable (Hyannis), .	4	3	1	5	23	22	6	9	51	60	9	51	60	12	123	41
Bridgewater, .	7	8	1	11	184	115	31	47	238	285	45	232	277	125	4,903	3,117
Fitchburg, .	4	7	4	18	55	50	14	3	107	110	1	108	109	53	310	125
Framingham, .	5	10	-	7	88	85	7	-	163	163	-	170	170	57	3,580	2,186
Lowell, .	3	8	1	17	100	60	14	2	132	134	-	135	135	33	323	76
North Adams, .	4	4	-	18	40	37	-	2	90	92	1	74	75	30	185	83
Salem, .	4	11	-	6	153	110	12	5	226	231	3	218	221	80	4,642	2,360
Westfield, .	4	4	2	16	117	87	9	-	116	116	1	126	127	55	4,322	1,639
Worcester, .	6	6	-	3	87	58	1	11	207	218	10	175	185	46	1,649	891
Normal Art (Boston), .	10	4	-	-	103	98	3	52	251	303	39	245	284	46	2,775	1,053
	51	65	9	101	950	722	97	131	1,531	1,712	109	1,534	1,643	537	22,812	11,571

private schools, some are teaching in other States, some are filling other than teaching positions, some are superannuated, some are married and have the care of families, and many are dead. It should not be overlooked that the earliest graduates, if any are living to-day, cannot now be far from eighty years of age.

*The Normal School System.* — One of the secretary's duties is to inspect the normal schools and report upon their condition. He has given special attention during his service to the examinations for admission under the new standard adopted, partly because the work and the standing of the normal school were destined to be strongly affected by them, and partly because it was possible through them to bring a new influence for better accomplishment to bear upon the high school. There is no doubt but that the normal school is attracting more students, doing a higher order of work, wielding a greater power and holding a place of superior dignity because of the enhanced price put upon its service. There is no doubt also but that the high school is feeling the new normal school impulse. In 1899 the high schools (244 out of 262) sent 557 pupils to the normal schools, 273 to the scientific schools and 818 to the colleges. What the colleges are to the college preparatory courses in high schools, the normal and the scientific schools are to the general courses. It is highly important, of course, that this influence from above shall favor sensible instruction below. The normal school admission papers are framed, therefore, to call out power more than mere memory, skilfulness in marshalling such resources as one has more than prescribed quantities of information. As a result, the candidates that now come to the normal school are gaining in thoroughness of preparation, in spite of such deficiencies as must always be expected so long as ideals keep ahead of accomplishment, and the high schools are studying ways and means of increasing their efficiency in the presence of their new responsibilities.

Our ten normal schools have 116 teachers with 110 more in their observation and practice schools. If the secretary were to give a single day to inspection of the work of each of these teachers, he could not hope to cover the full range of that work, or form more than a general impression of its value,

and yet on this basis a year of incessant application would not complete the round of the schools, to say nothing of other normal school interests that also have claims upon his attention. The district superintendent supervises from 25 to 50 teachers in from two to five towns, and has his hands full. Give him as many towns as there are normal schools, with teachers in number to correspond, and the field would become hopelessly large. In this connection it may be said that city supervision, when compared with rural, is necessarily of a less personal, though none the less important, character; it covers a greater multitude of interests, but each of them in a less immediate way. By way of compensation, the higher demands and salaries of the city secure a better order of qualifications in teachers, and therefore reduce by so much the need of individual inspection and guidance. In the case of the normal schools, each has a capable supervisor to start with, — its own principal; and a capable special supervising board, — its visitors appointed by the Board of Education; and a capable general supervising board, — the Board of Education itself, which, through its general committees on finance, on teachers and on normal schools, the last two of recent origin, aims to deal intelligently with the system as a whole; and such limited oversight as the secretary of the Board can give. In view of the great expansion of the normal schools it has become impracticable for most members of the Board to do what was easily possible in the earlier history of the schools, — visit them all each year. And yet a personal view of them all is desirable. At present a board of visitors is seldom changed, so that it comes to know very thoroughly the school assigned to it. It is worthy of consideration, however, whether the growing interests of the normal schools do not now invite a modification of this policy. If, for example, the chairman of a visiting board should be retained, the other member or members changing once in a year or in two years, the intimate knowledge of a particular school now possessed might be retained and a better knowledge of the rest acquired. As there are ten schools, with twenty-one positions on their several visiting boards, and but eight members of the Board to fill them, the Governor and Lieutenant-Governor not serving on the committees of the Board, it would be feasible for each mem-

ber, during his term of eight years, to reach every school in the closer way suggested, and that, too, without serious increase of burden. But whatever supervision is feasible with the present means at the service of the Board, the field is large and important enough, especially if it should include a State plan for the examination and certification of teachers and district superintendents, to justify the employment of a competent person to render the additional service desired. It is not only proper but desirable that each normal school should aim to promote its own interests, but when the independently matured plans and estimates of ten schools are brought together, it is not surprising that the aggregate should stand in need of revision. To promote unity where needed and respect differences where justifiable, to favor the sparing hand and restrain the lavish, — such policies a closer acquaintance with the varying conditions of the entire system would enable the Board to enforce to better advantage. The secretary joins with the Board in recommending the employment of a suitable person for the general purpose indicated, in the belief that economy and efficiency unite in favor of the measure.

The secretary has repeatedly visited all the normal schools, although his visits have been less frequent and much briefer than he would have had them, had he been free to act his pleasure. From his survey of the system as a whole, he is led to make the following observations: —

1. The State's policy of favoring many smaller normal schools, while probably more expensive, is certainly more convenient for the people and more effective educationally than that of favoring a few larger ones.

2. The State may take just pride in the general excellence of the normal school grounds, buildings and equipment. They are not without their needs, but these have been so much reduced that they can now be met by expenditures bearing a modest ratio to the total cost of the several plants.

3. Owing to the organization of new schools and the resignations of teachers in the old, the teaching force in recent years has undergone many changes and been much enlarged. The total effect has been to improve the quality and the vigor of the instruction. The danger that threatens the aging teacher is that of routine and perfunctoriness, and, therefore, of es-



trangement from the times, which are always young. But not unfrequently he is young in heart, though venerable in years; abreast of the new, though trained to the old; and, while nearing the end, active with the vigor of the beginning. The wisdom, the gentle conservatism, the wholesome restraining influence of such a teacher are the very elements to give poise and steadiness to that new life which every teaching corps from time to time should acquire and cheerfully welcome.

4. Facilities for practice by normal school students have been largely extended and were never better than to-day. Still, they are not everywhere what they should be. The Salem school in particular, admirably appointed as it is, and with a system of excellent observation schools by permission of the city well under way, nevertheless has scant facilities for practice. It is hoped that the city and school will co-operate in extending this mutually profitable phase of work. There is a suspicion, indeed, that practice by neophytes means crude experimentation with children rather than good teaching,—a suspicion that has arisen in other places where normal schools have asked for practice privileges, but has been dispelled where fair trial has been granted. Experience shows that the practice school not only holds its own with other public schools, but not unfrequently surpasses them. Boston, Worcester, Lowell, Fitchburg, North Adams, Westfield, Bridgewater, Framingham and Barnstable have all extended valuable teaching privileges to the normal schools, and in every case, it is believed, to the mutual advantage and satisfaction of the city or town and the normal school located there.

5. Local training schools, in the presence of the enlarging facilities of the normal schools, are showing a trend either towards discontinuance or towards an organization that makes them supplement rather than rival the normal schools. With the State doing so much for its normal schools, it becomes the cities to co-operate with its policy rather than ignore or antagonize it. If a city paying good salaries and able to command experience and success for its teachers chooses to maintain a local training school, to which it admits, not graduates immediately from its high school, but graduates from the normal schools and colleges, and teachers of some experience whose fitness it wishes further to test in a probationary way, it can

justify its policy; for by this plan it puts a premium on adequate preparation, and at the same time protects its own schools. Otherwise it becomes a serious question whether the city ought not to depend directly upon the State schools.

6. The regular course of instruction is two years long. In three schools only, the Normal Art, the Bridgewater and the Hyannis, is a four years' course also permitted. In the case of the Hyannis school, its restricted constituency and the importance of doing as much good as possible with resources not otherwise fully taxed are special conditions that are believed to justify the additional longer course. There is a trend, however, in the schools as a whole towards utilizing a third year, by permission of the Board, for further study and practice. Three classes of students exhibit this trend, — those who at the end of two years have not satisfied their teachers or themselves that they are prepared to teach, and therefore take a third year to strengthen themselves; those who, though well qualified at the end of two years to teach, desire a higher order of preparation than the average; and those who, by means of special arrangements made by the normal schools with public schools of the neighborhood, spend this third year as teachers on modest salaries, with their study and practice subject to guidance from the normal schools. How soon this trend will pass into a general demand for a regular three years' course instead of two cannot now be said. It is in its favor that it means better preparation for those who take it; it is against it that at present too many worthy candidates may not be able to spend so much time in the schools.

7. The more the towns and cities entrust the nomination of teachers to their superintendents, the stronger the demand grows for teachers who are properly qualified. If the salary is high enough to command successful experience, the superintendent searches for it in schools that pay less. He feels surer of a teacher whom he has studied in the schoolroom. Otherwise he inclines to take normal school graduates. In this way nearly all the members of the graduating classes — a much larger percentage than one would suppose — find prompt employment. Not unfrequently a large proportion of a class is engaged previous to graduation. The demand for good teachers is still in advance of the supply.

8. The time has not yet come — probably it never will come — when the normal schools can guarantee success in teaching for all their graduates. The diploma bears witness that the holder has enjoyed certain privileges, has improved them sufficiently to receive the diploma, is presumably qualified to teach, and certainly much better qualified than if the diploma had not been earned; and far more graduates have borne out the affirmations of the diploma than contradicted them. While examinations for admission to the normal schools bar out, to some extent, unpromising material, while there is a further reduction of such material during the normal school course, at the last there must always be candidates for the diploma about whom mistakes are likely to be made, whether the diploma is granted or not. Again and again the inferior scholar has become a good teacher; again and again has an unsuspected capacity lain dormant until bitter experience or temporary defeat has called it forth. Moreover, the circumstances of life complicate the situation, so that under one set of conditions promising holders of diplomas break down, while under another unpromising holders may manage to survive. And so a measure of uncertainty hangs over diplomas confidently awarded, to say nothing of those cases where faithful but hardly satisfactory candidates have finally been given the benefit of the doubt. There is room here for the improvement of standards; it is believed that such improvement is making; but so long as diplomas read alike, while their recipients show endless diversities, the common sense of the public must be trusted to interpret these documents reasonably, and in the light of accompanying facts.

9. It is sometimes said that the normal school system lacks unity. Whether this is true or false turns on the meaning injected into the word unity. The secretary cannot, indeed, sit in his office and assert that at a particular moment every normal school in the State is doing the same prescribed piece of work. Unity of this type is unity of the outward, the formal, the unessential only. It is a mechanical unity that does violence to the only unity worth having, — that unity which is best exhibited when the second step of the pupil connects naturally, logically and admirably with the first. Since each normal school has its own environment of teachers, pupils,

community and conditions, and has not been unduly hampered by impositions from without, it has a well-defined individuality as a consequence. If it is good philosophy to respect a pupil's individuality while giving him instruction, why is it not equally good philosophy to respect a school's individuality while favoring its growth? While the normal schools are working on the same general lines for the same general ends, as outlined in the regular two years' course of study, each does its work in its own way. Moreover, each is doing some special work not attempted by the others, or solving some common problem after a method of its own, so that to this extent its work is unique. Only one school, for instance, deals largely with young men, only one has a department of household arts, only one has a summer session for teachers who wish to take a normal school course while retaining their positions, only one commands in a large way the public schools of a city for an apprenticeship system, only one has at its disposal for practice purposes an entire city system of kindergartens, only one puts its pupil-teachers for their practice in entire charge of city schoolrooms for weeks or months at a time; and so on, with many illustrations for each of the schools. These differences reflect earnest convictions. They give to the system as a whole a mild elective character; diversities of taste and ambition are gratified where a certain choice is thus offered. Unity here is not to be sought, unless, indeed, it appears that some school has found the solution of a problem that has baffled the rest, in which case the rest should profit by the solution. But there are some matters in which the need of a unifying agency is seriously felt,—uneven salaries, for example, uneven pressure for supplies and equipment, the various inequalities, in brief, that are naturally due to ten schools independently and laudably striving to improve their condition. It is not this earnestness for better things that should be extinguished, but certain consequences of varying degrees of persistency that should be equalized or subdued. Then there are those supreme things in which unity is imperative, to wit, the fundamental conceptions of what education is and of what the processes are by which it is to be gained.

But enough has been said to indicate the general lines on which our normal schools are developing and the general

problems that tax their wisdom. For a final statement, the expressions of a former report will bear repetition: "While now and then a normal school teacher is of questionable efficiency, while here and there a normal school graduate fails as a teacher, while normal school methods may lapse in some cases into the mechanical and lifeless, while thoughtful people have higher ideals for normal school work than any thus far attained, we must not let such things, which are incident to a complex system and to all human endeavor, obscure our view of the great work they have done in the past and are now doing for our schools. Four thousand\* of our normal school graduates are teaching in our public schools. Many more as superintendents of schools are moulding hundreds of teachers who never received any special professional training. And others still, as intelligent citizens, withdrawn from direct teaching, are adding in many ways to a sound school sentiment. Certainly there was never a more liberal, wise, earnest and ambitious educational spirit in the State than at the present time, and it has been largely due to the work of the normal schools. The fact that the enlightened world stands committed to the principle of the professional training of teachers is witness both to the need of such training by candidates for teaching and to the general worth of such training when given."

#### TEACHERS' INSTITUTES.

*Number and Attendance.* — The following table gives various facts relative to the State institutes held in 1900: —

XXXII. *Table showing sundry facts relative to State institutes held in 1900.*

WHERE HELD.	Date.	Number of towns represented.	Number of members.	Number of exercises.	By whom conducted.
Athol, . . . .	Oct. 30,	11	142	13	J. W. MacDonald.
Ayer, . . . .	Nov. 2,	14	149	12	J. W. MacDonald.
Barnstable (Hyannis),	Nov. 15,	16	154	13	J. T. Prince.

\* 4,905 for 1900.

XXXII. *Table showing sundry facts relative to State institutes held in 1900 — Concluded.*

WHERE HELD.	Date.	Number of towns represented.	Number of members.	Number of exercises.	By whom conducted.
Charlemont, . . .	Apr. 25,	5	28	6	G. T. Fletcher.
Chester, . . .	Oct. 1,	8	44	5	G. T. Fletcher.
Colrain, . . .	Apr. 26,	5	41	6	G. T. Fletcher.
Dalton, . . .	Apr. 24,	4	37	6	G. T. Fletcher.
Dartmouth (Smith Mills).	Oct. 26,	6	70	10	J. T. Prince.
Dedham, . . .	Oct. 15,	14	314	16	J. T. Prince.
Franklin, . . .	Oct. 24,	11	186	15	J. T. Prince.
Great Barrington, .	May 3,	13	110	10	G. T. Fletcher.
Hingham, . . .	Oct. 19,	12	241	16	J. T. Prince.
Hinsdale, . . .	Oct. 5,	6	25	5	G. T. Fletcher.
Medford, . . .	Nov. 14,	2	153	13	J. W. MacDonald.
Nantucket, . . .	Sept. 14,	2	24	9	J. T. Prince.
Northampton, . .	July 2-10,	62	183	62	G. T. Fletcher.
Northfield, . . .	Dec. 7,	4	25	7	G. T. Fletcher.
Plymouth, . . .	Oct. 17,	10	174	16	J. T. Prince.
Reading, . . .	Oct. 8,	8	181	16	J. W. MacDonald.
Salem, . . .	July 5-13,	89	445	158	J. W. MacDonald.
Sandisfield, . . .	June 8,	7	30	7	G. T. Fletcher.
Savoy, . . .	June 5,	3	27	8	G. T. Fletcher.
Southbridge, . .	Oct. 12,	7	131	14	J. W. MacDonald.
South Hadley, . .	May 17,	2	30	6	G. T. Fletcher.
Southwick, . . .	Sept. 28,	3	33	6	G. T. Fletcher.
Taunton, . . .	Oct. 22,	17	383	15	J. T. Prince.
Ware, . . .	Apr. 27,	11	131	10	G. T. Fletcher.
Totals, . . . 27	—	352	3,491	480	

The members counted are teachers and school authorities. Many others not connected with the schools attended some of the institutes. The smaller institutes indicate the efforts of the Board to reach the teachers of the more sparsely settled and less accessible towns.

*Division of Institute Work in 1900 among the Agents.*—The institute work was divided among the agents as follows:—

	Institutes.	Towns.	Members.	Exercises.
Mr. Prince, . . . .	8	88	1,546	110
Mr. Fletcher, . . . .	13	133	744	144
Mr. MacDonald, . . . .	6	131	1,201	226

*State Institutes for the Past Ten Years.*—The following statement gives the totals of the institute tables for the past ten years:—

YEAR.	Number of institutes held.	Number of towns represented.	Number of members.	Number of exercises.
1891, . . . . .	17	163	1,997	180
1892, . . . . .	25	185	2,184	230
1893, . . . . .	29	234	2,837	361
1894, . . . . .	25	310	4,640	317
1895, . . . . .	17	239	3,226	266
1896, . . . . .	29	370	4,137	393
1897, . . . . .	20	366	4,648	456
1898, . . . . .	24	295	3,428	441
1899, . . . . .	22	312	2,954	499
1900, . . . . .	27	352	3,491	480

If a town is represented at two or more institutes, it is counted for each case in the foregoing statement. Thus, in

1900, 352 towns were counted, while the number of different towns represented was 271.

*Towns represented at the Institutes.* — The chief interest of the following table lies in its making known how far the institutes of the present year have been successful in reaching the towns of the State and the teachers thereof: —

XXXIII. *Towns represented at the institutes.*

TOWNS.	Teachers.	TOWNS.	Teachers.
Abington, . . . . .	24	Charlemont, . . . . .	12
Acton, . . . . .	11	Charlton, . . . . .	14
Adams, . . . . .	2	Chatham, . . . . .	13
Agawam, . . . . .	15	Chelsea, . . . . .	2
Amesbury, . . . . .	4	Cheshire, . . . . .	6
Amherst, . . . . .	11	Chester, . . . . .	8
Andover, . . . . .	38	Chesterfield, . . . . .	2
Arlington, . . . . .	4	Chicopee, . . . . .	2
Ashburnham, . . . . .	14	Clinton, . . . . .	1
Ashby, . . . . .	9	Cohasset, . . . . .	15
Ashfield, . . . . .	5	Colrain, . . . . .	23
Ashland, . . . . .	2	Conway, . . . . .	1
Athol, . . . . .	32	Cummington, . . . . .	1
Attleborough, . . . . .	53	Dalton, . . . . .	34
Avon, . . . . .	9	Danvers, . . . . .	22
Ayer, . . . . .	15	Dartmouth, . . . . .	22
Barnstable, . . . . .	1	Dedham, . . . . .	46
Barre, . . . . .	9	Deerfield, . . . . .	4
Becket, . . . . .	8	Dennis, . . . . .	14
Belchertown, . . . . .	17	Dighton, . . . . .	12
Bellingham, . . . . .	8	Dover, . . . . .	5
Berkley, . . . . .	10	Dudley, . . . . .	21
Bernardston, . . . . .	4	Duxbury, . . . . .	11
Beverly, . . . . .	20	East Bridgewater, . . . . .	14
Billerica, . . . . .	2	Eastham, . . . . .	3
Blackstone, . . . . .	22	Easthampton, . . . . .	3
Blandford, . . . . .	10	Easton, . . . . .	32
Bolton, . . . . .	5	Edgartown, . . . . .	3
Boston, . . . . .	6	Egremont, . . . . .	4
Bourne, . . . . .	14	Enfield, . . . . .	6
Boxborough, . . . . .	5	Essex, . . . . .	8
Boxford, . . . . .	2	Everett, . . . . .	2
Brewster, . . . . .	5	Fall River, . . . . .	16
Bridgewater, . . . . .	27	Falmouth, . . . . .	17
Brookfield, . . . . .	7	Fitchburg, . . . . .	7
Brookline, . . . . .	2	Florida, . . . . .	4
Buckland, . . . . .	11	Foxborough, . . . . .	18
Burlington, . . . . .	3	Framingham, . . . . .	2
Cambridge, . . . . .	3	Franklin, . . . . .	29
Canton, . . . . .	21	Freetown, . . . . .	8
Carver, . . . . .	10	Gardner, . . . . .	6



XXXIII. *Towns represented at the institutes* — Continued.

TOWNS.	Teachers.	TOWNS.	Teachers.
Georgetown, . . . .	3	Marshfield, . . . .	14
Gill, . . . . .	6	Mashpee, . . . . .	4
Gloucester, . . . .	5	Mattapoisett, . . . .	1
Goshen, . . . . .	1	Maynard, . . . . .	1
Granby, . . . . .	7	Medfield, . . . . .	9
Granville, . . . . .	9	Medford, . . . . .	105
Great Barrington, . .	30	Medway, . . . . .	16
Greenfield, . . . . .	10	Melrose, . . . . .	10
Groton, . . . . .	16	Mendon, . . . . .	6
Groveland, . . . . .	3	Merrimac, . . . . .	3
Hadley, . . . . .	1	Middleborough, . . . .	47
Hamilton, . . . . .	3	Middlefield, . . . . .	6
Hanover, . . . . .	15	Milford, . . . . .	22
Hanson, . . . . .	10	Millis, . . . . .	7
Hardwick, . . . . .	13	Milton, . . . . .	59
Harvard, . . . . .	10	Monson, . . . . .	4
Harwich, . . . . .	14	Montague, . . . . .	3
Hatfield, . . . . .	4	Monterey, . . . . .	8
Haverhill, . . . . .	2	Montgomery, . . . . .	4
Hawley, . . . . .	9	Mount Washington, . .	1
Heath, . . . . .	11	Nahant, . . . . .	4
Hingham, . . . . .	31	Nantucket, . . . . .	21
Hinsdale, . . . . .	10	Needham, . . . . .	19
Holbrook, . . . . .	9	New Bedford, . . . . .	1
Holland, . . . . .	2	New Braintree, . . . .	2
Holliston, . . . . .	2	New Marlborough, . . .	8
Holyoke, . . . . .	11	New Salem, . . . . .	9
Hopedale, . . . . .	12	Newburyport, . . . . .	3
Hull, . . . . .	6	Newton, . . . . .	1
Huntington, . . . . .	9	Norfolk, . . . . .	5
Hyde Park, . . . . .	52	North Adams, . . . . .	1
Ipswich, . . . . .	1	North Attleborough, . .	40
Kingston, . . . . .	13	North Brookfield, . . .	1
Lakeville, . . . . .	5	North Reading, . . . .	5
Lancaster, . . . . .	2	Northampton, . . . . .	38
Lanesborough, . . . .	1	Northfield, . . . . .	14
Lawrence, . . . . .	3	Norton, . . . . .	12
Lee, . . . . .	16	Norwell, . . . . .	11
Leicester, . . . . .	2	Norwood, . . . . .	30
Lenox, . . . . .	20	Oakham, . . . . .	5
Leverett, . . . . .	2	Orange, . . . . .	27
Leyden, . . . . .	3	Orleans, . . . . .	6
Littleton, . . . . .	9	Otis, . . . . .	3
Ludlow, . . . . .	2	Oxford, . . . . .	16
Lunenburg, . . . . .	9	Palmer, . . . . .	38
Lynn, . . . . .	44	Peabody, . . . . .	11
Lynnfield, . . . . .	7	Pelham, . . . . .	2
Malden, . . . . .	11	Pembroke, . . . . .	2
Manchester, . . . . .	8	Pepperell, . . . . .	25
Mansfield, . . . . .	22	Peru, . . . . .	5
Marblehead, . . . . .	15	Petersham, . . . . .	11
Marion, . . . . .	6	Phillipston, . . . . .	5

XXXIII. *Towns represented at the institutes — Concluded.*

TOWNS.	Teachers.	TOWNS.	Teachers.
Pittsfield, . . . . .	3	Taunton, . . . . .	142
Plainfield, . . . . .	7	Templeton, . . . . .	18
Plymouth, . . . . .	48	Tolland, . . . . .	6
Plympton, . . . . .	2	Topsfield, . . . . .	2
Provincetown, . . . . .	9	Townsend, . . . . .	15
Quincy, . . . . .	3	Truro, . . . . .	4
Randolph, . . . . .	19	Tyngsborough, . . . . .	4
Raynham, . . . . .	8	Tyringham, . . . . .	4
Reading, . . . . .	40	Uxbridge, . . . . .	2
Rehoboth, . . . . .	11	Wakefield, . . . . .	2
Rochester, . . . . .	4	Walpole, . . . . .	22
Rockland, . . . . .	30	Waltham, . . . . .	4
Rowe, . . . . .	5	Ware, . . . . .	41
Rowley, . . . . .	1	Wareham, . . . . .	23
Royalston, . . . . .	7	Warwick, . . . . .	3
Russell, . . . . .	3	Washington, . . . . .	3
Salem, . . . . .	42	Webster, . . . . .	23
Salisbury, . . . . .	3	Wellesley, . . . . .	21
Sandisfield, . . . . .	8	Wellfleet, . . . . .	2
Sandwich, . . . . .	10	West Bridgewater, . . . . .	13
Saugus, . . . . .	5	West Brookfield, . . . . .	1
Savoy, . . . . .	7	West Stockbridge, . . . . .	8
Scituate, . . . . .	15	Westfield, . . . . .	1
Seekonk, . . . . .	1	Westford, . . . . .	17
Sharon, . . . . .	11	Westhampton, . . . . .	3
Sheffield, . . . . .	11	Weston, . . . . .	2
Shelburne, . . . . .	10	Westport, . . . . .	21
Shirley, . . . . .	7	Westwood, . . . . .	7
Shrewsbury, . . . . .	2	Weymouth, . . . . .	61
Shutesbury, . . . . .	1	Whitman, . . . . .	28
Somerville, . . . . .	7	Wilbraham, . . . . .	2
South Hadley, . . . . .	25	Williamstown, . . . . .	2
Southampton, . . . . .	1	Wilmington, . . . . .	10
Southbridge, . . . . .	47	Winchendon, . . . . .	18
Southwick, . . . . .	11	Winchester, . . . . .	51
Springfield, . . . . .	4	Windsor, . . . . .	18
Sterling, . . . . .	1	Woburn, . . . . .	66
Stockbridge, . . . . .	9	Worcester, . . . . .	2
Stoneham, . . . . .	33	Wrentham, . . . . .	20
Stoughton, . . . . .	18	Yarmouth, . . . . .	12
Sturbridge, . . . . .	17	Other States, . . . . .	24
Sudbury, . . . . .	1	Not registered, . . . . .	50
Sunderland, . . . . .	4		
Swampscott, . . . . .	3		
Swansea, . . . . .	8		
		Number of towns, 271,	3,491

*Topics presented at Institutes.* — The nature of the work done at the institutes can best be inferred from the following list of topics presented at the day meetings by the speakers mentioned: —

*Algebra*, — J. W. MacDonald.

*Arithmetic*, — G. T. Fletcher, J. W. MacDonald, J. T. Prince.

Advanced Arithmetic, — J. W. MacDonald.

Essentials in Arithmetic, — G. T. Fletcher, J. T. Prince.

Kinds of Arithmetic most Worth, — Frank F. Murdock.

Percentage and its Applications, Teaching of Fractions, — G. T. Fletcher.

*Beauty in School Work, Beauty in the Schoolroom, Brush Work*, — Henry T. Bailey.

*Civil Government*, — J. W. MacDonald.

*Course of Study*, — Ernest D. Daniels.

*Color Work*, — Henry T. Bailey.

*Decorative Design*, — Henry T. Bailey.

*Drawing, Drill Work in Drawing, Nature Drawing, Structural Drawing*, — Henry T. Bailey.

*Drawing and Nature Study*, — L. Walter Sargent.

*Educative Desk Work*, — Mary I. Lovejoy.

*English*, — Emily C. Fisher, J. T. Prince.

College Entrance English, — Carroll Lewis Maxy.

*English Grammar*, — G. T. Fletcher, J. T. Prince.

*English Literature*, — Charles S. Chapin, Grace Clark, Emily C. Fisher, William D. Jackson, Anna Boynton Thompson.

*Folk Lore and Fairy Tales*, — Mrs. Elizabeth Y. Rutan.

*Froebel's Means of Education*, — Lucy Wheelock.

*Fundamental Principles of Teaching*, — Charles S. Chapin.

*Geography*, — Mrs. Mary R. Davis, Frederic H. Holmes, J. T. Prince, Charles P. Sinnott.

First Steps in Geography, — Anna W. Braley.

How to teach Geography, — G. T. Fletcher.

Outdoor Geography, — Frank F. Murdock.

*Geometry*, — J. T. Prince.

"*Growth*," — John M. Tyler.

*Growth of Motives*, — Frank F. Murdock.

*History*, — Lyman R. Allen, A. C. Boyden, C. A. Brodeur, J. C. Lyford, J. T. Prince, Annah May Soule, Anna Boynton Thompson.

History Teaching, Aims, Methods and Results, — Myra J. Ellis.

Suggestions to Teachers of History, — Mary E. Whipple.

*How to keep a Register*, — Elmer F. Howard.

*How to make School Work Valuable*, — John B. Gifford.

*Inspection Notes*, — J. T. Prince.

*Kindergarten Methods in the Primary School*, — Anna W. Devereaux.

*Language*, — Nellie B. Allen, Charles S. Chapin, Mrs. Mary R. Davis, Ida E. Finlay, G. T. Fletcher, John B. Gifford, Nelson G. Howard, William H. Sanderson.

Primary Language, — Mary I. Lovejoy.

Language and Grammar, — William D. Parkinson, J. T. Prince, H. W. Lull.

*Latin*, — William C. Collar, Ernest D. Daniels, Franz H. Kirmayer, J. W. MacDonald, Henry D. Wild.

College Preparatory Latin, — Henry D. Wild.

Translating Latin, — J. W. MacDonald.

*Letter Writing in School*, — Frank F. Murdock.

*Mathematics*, — J. W. MacDonald.

*Methods*, — G. T. Fletcher.

*Modern Languages*, — Franz H. Kirmayer.

*Music*, — Sterrie A. Weaver.

*Nature Study*, — Henry T. Bailey, A. C. Boyden, Sarah M. Brassill.

Artistic Results in Nature Study, Nature Study and Decorative Design, Nature Study and Drawing, — Henry T. Bailey.

*Occupations*, — Ida E. Finlay.

*Physics*, — William D. Jackson.

Practical Physics, — Frank M. Gilley, Lyman C. Newell.

Simple Apparatus in Physics and Chemistry Teaching, — Charles B. Wilson.

*Physiology and Hygiene*, — Mrs. Ella B. Hallock.

*Practical Application of the Laws of Apperception*, — J. W. MacDonald.

*Practical Child Study*, — J. T. Prince.

*Principles of Teaching*, — G. T. Fletcher.

*Reading*, — C. A. Brodeur, Richard Wood Cone, Mrs. Emma K. Gordon, Margaret T. Hurley, J. W. MacDonald, Mary Marston, J. T. Prince, Emma C. Stockwell.

Elementary Reading, C. A. Brodeur, Elmer F. Howard.

Oral Reading, — J. W. MacDonald.

Primary Reading, — Mrs. Mary R. Davis, Mrs. Susan H. Wallis.

*Reading and Language*, — Mary I. Lovejoy.

*School Discipline*, — Charles S. Chapin.

*School Management*, — G. T. Fletcher.

Primary School Management, — H. W. Lull.

*School Laws*, — Elmer F. Howard.

*Some Axioms of Good Teaching*, — Charles S. Chapin.

*Spelling*, — C. A. Brodeur.

*Story-telling*, — Anna W. Braley, Mrs. Elizabeth Y. Rutan.

*Study of Birds, Study of Plants*, — Henry T. Bailey.

*The Best Fairy Tales*, — Mrs. Inez Haynes Gillmore.

*The Human Body*, — Mrs. Ella B. Hallock.

*The Laboratory Idea in Astronomy*, — Charles J. Emerson.

*The Recitation*, — Charles S. Chapin.

*The Speaking Voice*, — Richard Wood Cone.

*The State and the School*, — Lucy Wheelock.

*The Teacher, the Subject and the Child, Teachers and the Home*, —  
G. T. Fletcher.

*Two Phases of Commercial Education*, — H. G. Greene.

*Other Addresses at the Day Meetings.* — In addition to the topics presented at the institutes, day addresses were given by the following persons: Richard Wood Cone, on "Training of the Voice," "The Speaking Voice;" Benjamin K. Emerson, on "A Trip to Alaska and the Aleutian Islands;" Frank A. Hill, on "Discipline and Citizenship;" J. W. MacDonald, on "Practical Application of the Laws of Apperception;" George H. Martin, on "The High Function of the Course of Studies;" A. D. Mayo, on "Some Things the People expect of the Teachers;" Frank F. Murdock, on "Present Day Business of Schools;" George Herbert Palmer, on "The School as an Ethical Instrument;" George C. Purington, on "A Great Educator;" E. Harlow Russell, on "English Composition;" Mason S. Stone, on "Advantages of the Rural Schools;" John M. Tyler, on "The Teachers' Problem;" Charles Welsh, on "Choice of Books for Young People."

*Evening Addresses.* — Evening addresses were given by Sarah L. Arnold, on "The Teacher's Problem;" Henry T. Bailey, on "Drawing in the Public Schools," "Manual Training;" G. T. Fletcher, on "Educational Progress;" A. D. Mayo, on "How does Universal Education pay;" J. T. Prince, on "The Home and the School;" John M. Tyler, on "Growth;" and also by the agents of the Board, on "Some Phases of Educational Work."

*Summer Institutes for Teachers.* — The Legislature places at the disposal of the Board \$1,500 annually for the holding of summer institutes for teachers. In response to a general desire, the length of these institutes has been extended from

one week to two. They now limit their work to the forenoon, leaving teachers free for the rest of the day. The modest amount of study to which members of these institutes are advised to restrict themselves, and the abundant opportunities offered them for outdoor life, for the companionship of friends and for recreation, are believed to be consistent with that change and rest which wearied teachers so sorely need. No summer institute that fails to recognize such need should be encouraged. Only two summer institutes are now held, one at Salem for eastern Massachusetts and the other at Northampton for western Massachusetts. It may be advisable at times to hold each of these institutes at some other convenient place. An account of the summer normal school at Hyannis is given in the report of the visitors of that school.

*Teachers' Summer Institute at Northampton.* — The tenth session of the Teachers' Summer Institute for western Massachusetts was held at Northampton, in the high and central grammar school buildings, instead of at Laurel Park as heretofore, from Monday, July 2, to Tuesday, July 10, 1900, inclusive. The forenoons were devoted to lectures, lessons and conferences; the afternoons, to outdoor lessons, recreation or rest, at the option of teachers. The following announcements, taken from the published program, indicate the broad and practical character of the privileges offered: —

Dr. Edward R. Shaw, dean of the School of Pedagogy, New York University: —

- (1, 2) The Correlation of Studies with Practical Illustrations.
- (3) An Exposition of Three Fundamental Principles of Teaching.
- (4) The Value of the Motor Activities as an Aid in Teaching.
- (5) Interest and Practical Suggestions therefor.

Arthur C. Boyden, vice-principal of the Bridgewater Normal School: —

Four lectures upon American history, illustrated by outlines, maps, diagrams, pictures, etc.

Henry M. Tyler, professor of Greek, Smith College: —

Socrates as a teacher.

John M. Tyler, professor of biology, Amherst College: —

- (1) The Teacher and the State.
- (2) The Survival of the Fittest, — the History of Muscular Development.
- (3) A Natural Education.

William Orr, Jr., of the Springfield High School:—

- (1) Study of a topographical map.  
Atlas sheet for Northampton.  
Directions on interpretation and use of a field map.
- (2) Excursion to Williamsburg.  
Study of Williamsburg granite and its relation to Connecticut valley sandstone.
- (3) Excursion to Mount Holyoke.  
Study of trap overflow sheets and their relation to sandstone.  
Columnar structure, volcanic cones, dykes, local metamorphosis.
- (4) Excursion to Mount Tom.  
Study of volcanic cones of later eruptions, tufa beds of Smith's Ferry, faults, dykes.
- (5) Excursion to Laurel Park.  
Glacial deposits, terraces of Connecticut valley, recent work of the river.

The department of drawing will be under the direction of Walter Sargent, assistant supervisor of drawing.

Mr. Sargent will give several lectures, and Aldin K. Davison will offer opportunities for class work.

During the session of the institute primary methods of instruction will be presented in lessons, conferences or class exercises, by Mary R. Davis of the Bridgeport, Conn., Teachers' Training School.

Mr. J. C. Moody of Springfield will give instruction in penmanship daily.

Under the direction of G. T. Fletcher and several school superintendents, round table conferences of teachers will be held for a discussion of the subjects and methods that pertain to every day school work.

Prof. Mary A. Jordan, Smith College, will give two addresses upon English literature, with practical suggestions.

Mr. George W. Cable of Northampton will give an evening reading from his writings.

The institute was in charge of Grenville T. Fletcher, agent of the Board.

*Teachers' Summer Institute at Salem.*—The fourth session of the Teachers' Summer Institute, under the joint management of the State Board of Education and the North Shore Summer School Association, was held at the Salem Normal School building from Thursday, July 5, to Friday, July 13, 1900. The program of daily work is given here in full, since

there is no better way to indicate its character and to preserve a satisfactory record of it for the future student of our educational history : —

DAILY PROGRAM.

8.35 A.M. Opening exercises.

8.45 to 9.30 A.M. General lectures : Main hall, July 5 to 8, B. C. Gregory, supervising principal, Trenton, N. J., four lectures. Subject : The Kindergarten Idea in Primary and Grammar School Education. July 9 to 13, Dr. Edward R. Shaw, dean of the School of Pedagogy, New York University, four lectures. Subjects : (1) An Exposition of Three Fundamental Principles of Teaching ; (2) The Value of the Motor Activities as Aids in Teaching ; (3) Interest and Practical Suggestions therefor ; (4) Literature in the School and its Influence.

11.15 A.M. to 12 M. July 5 and 6, C. B. Gilbert, superintendent of schools, Newark, N. J., two lectures. Subjects : (1) The Life of the School ; (2) The Interrelation of Studies.

July 7. A. K. Whitcomb, superintendent of schools, Lowell. Subject : Physical Defects of School Children.

July 9 and 10. Grace N. Kimball, M.D., of Vassar College, two lectures. Subject : Some Physical and Moral Considerations in Education.

July 11. Hon. W. W. Stetson, Maine State superintendent of education. Subject : " What Next ? "

July 12. Mrs. Alice Freeman Palmer. Subject : How can Teachers prepare themselves to meet the New Demands in Education ?

July 13. Meeting of the North Shore Summer School Association. All attending the school are members of the association by virtue of their tickets.

*Primary Section.*

9.35 to 10.20 A.M. Drawing, art room, upper floor ; James Hall, supervisor of drawing, Springfield.

NOTE. — The instruction in drawing will be for the most part individual, and will extend through this and the following period, and students can take it for either one of these periods (or for both) if they wish.

Laboratory course in botany, botanical room, upper floor ; Miss Jessie P. Learoyd, Normal School, Salem.

NOTE. — This course will extend through this and the following period, and students can take it for one or both periods, as they wish. The aim will be to show how a teacher by the use of specimens and books may acquire



sufficient knowledge of any phase of botany to be taught in the elementary schools. Specimens, dissecting instruments, magnifying glasses and microscopes will be provided. The selection of subjects will depend somewhat on the choice of those who present themselves for the work. Some typical plant or plants will be studied, as the fern, the pine, a grass, or some one or more of a higher order of plants. The parts of these will be studied in detail, as, for example, their adaptation to the surroundings of the plant, their manner of growth, etc.

Educative desk work and school management, room 2, lower floor;  
Herbert W. Lull, superintendent of schools, Quincy.

Synopsis: Best use of pupils; best review work; best means of developing independent study; best way for the teacher "to put herself into her school;" best teaching of school habits and virtues; samples of school work.

10.25 to 11.10 A.M. Music, main hall; Samuel W. Cole, director of music, Brookline and Dedham, July 5 to 9.

Reading, room 2, lower floor, illustrated with classes; Mrs. Emma K. Gordon, Wadsworth School, Milton, July 5 and 6, Grade I.; Miss Emma C. Stockwell, Center School, Malden, July 7 and 9, Grade I.; Miss Louise E. Pratt, Prescott School, Somerville, July 10 and 11, Grade II.; Miss Mary I. Lovejoy, Malden, Reading, grades III. and IV., July 12; Literature for all primary grades, July 13.

Number work, room 1, lower floor; Miss Helen M. Humphrey, Normal School, Fitchburg.

Drawing, continued from preceding period.

See note.

Laboratory course in botany, continued from preceding period.

See note.

11.15 A.M. to 12.00 M. General lectures, as stated above.

12.00 M. to 12.20 P.M. Intermission for lunch.

12.20 to 1.05 P.M. Geography, room 5, lower floor; Louis P. Nash, superintendent of schools, Holyoke.

NOTE. — Work for grades up to the fifth.

Number work, room 1, lower floor; Miss Humphrey, Normal School, Fitchburg.

A repetition of course at 10.25.

Educative desk work and school management, room 2, lower floor;  
Mr. Lull.

A repetition of course at 9.35.

*Grammar Section.*

9.35 to 10.20 A.M. Drawing, art room, upper floor; James Hall, supervisor of drawing, Springfield.

See note under drawing, Primary Section.

Laboratory course in botany; botanical room, upper floor; Miss Jessie P. Learoyd, Normal School, Salem.

See note under this course, Primary Section.

Arithmetic, room 37, middle floor; John H. Walsh, associate superintendent of schools, Brooklyn, N. Y.

NOTE. — The aim will be to show: (1) How pupils can be trained to accuracy and rapidity in the fundamental processes of computation, and to use reason and common sense in attacking problems. (2) How business transactions requiring much arithmetical computation, as taxes, insurance, stocks and bonds, etc., can be made comprehensible and real to the pupils. (3) The close relation between arithmetic and algebra.

United States history, room 4, lower floor; Arthur C. Boyden, Normal School, Bridgewater.

NOTE. — This course will take up in outline the important periods of our history as taught in grammar schools: (1) The work of the teacher, — to bring out the fundamental elements of history, personality, movement of events, cause and effect. (2) The work of the pupil, — to gather and fix facts, to imagine conditions, to think out the meaning of events, to feel the inspiration of high motives. Abundant illustrations will be used of outlines, maps, diagrams, pictures, sources of information, etc.

Geography, room 5, lower floor; Louis P. Nash, superintendent of schools, Holyoke.

NOTE. — Adapted to Grade VI. and above.

10.25 to 11.10 A.M. Language and grammar, room 3, lower floor; Wm. D. Parkinson, superintendent of schools, Waltham.

NOTE. — The aim will be to examine the field of language work and to map it out with due regard to proportion; to find the ends to be kept in view and the most effective means to the ends; regarding language as a vehicle of thought and feeling, to consider how much attention is to be devoted to the *mechanism* and how much to the *impetus*; means of mastering the mechanism; sources of the impetus; *practice* (a) in interpretation and (b) in expression; varieties, tests and significance of errors in practice.

*Example* as a means of impetus and aid to mastery ; variety of ways in which and sources from which example may be brought to bear. *Instruction* upon the mechanism ; syntax ; analysis. *Correction* of errors ; source of errors ; significance ; when, how, and by whom to be corrected ; standards of correction. *Comparative emphasis* to be put upon positive and negative instruction, stimulus and correction, illumination and precision, appreciation and criticism.

Oral reading, room 37, middle floor ; J. W. MacDonald, agent of the State Board of Education.

NOTE.—Summary of the treatment: How oral reading differs from silent reading on the one hand, and from reciting memorized selections on the other ; educational value of oral reading ; preliminary training essential to good oral reading, as in position, breathing, articulation, quality of voice, inflection, time, force, pitch, etc. ; typical selections for reading and how to use them.

Teachers electing this course will do well to bring with them the following books: Watson's Independent Fifth Reader (a book much used twenty years ago), Cyr's Fifth Reader, Miss Arnold's Stepping Stones to Literature, Bryant's Poems and Emerson's Poems.

Drawing, continued.

Laboratory course in botany, continued.

11.15 A.M. to 12.00 M. General lectures, as stated above.

12.00 M. to 12.20 P.M. Intermission for lunch.

12.20 to 1.05 P.M. Music, main hall ; Samuel W. Cole, director of music, Brookline and Dedham, July 5 to 9 ; Frederic H. Ripley, Longfellow School, Boston, July 10 to 13.

History, room 4, lower floor ; Mr. Boyden.

A repetition of course at 9.35. See note therewith.

Algebra, room 37, middle floor ; Mr. MacDonald.

NOTE.—This instruction will be with a class of beginners in algebra, and will endeavor to show how they should make their first acquaintance with the principles and processes.

FRANK A. HILL,

*Secretary of the State Board of Education.*

FRANK E. HOBART,

*President of the Summer School Association.*

J. W. MACDONALD,

*Agent of the State Board of Education.*

*Art Institute.* — In addition to the institutes given in the list on page 213, an art institute was held at the Normal Art School, Boston, Nov. 27, 1900, at which 53 towns, more or less, were represented by about 350 persons, — supervisors and teachers of drawing and others interested in public school art instruction. The speakers announced were Frank A. Hill, secretary of the State Board of Education, George H. Bartlett, principal of the State Normal Art School, James Frederick Hopkins, director of art instruction, city of Boston, Edwin D. Mead of Boston, Edward S. Morse of Salem, Miss Emily Sartain of Philadelphia and John La Farge of New York City. Mr. La Farge was unable, however, to fulfil his engagement. The meetings were in charge of Henry T. Bailey, State agent for the promotion of industrial drawing, and were instructive and stimulating to those who attended them.

*Meetings of School Committees and Superintendents of Schools.* — Conferences of school committees and superintendents of schools have been held at the State House under the direction of John T. Prince, agent of the Board. Subjects of discussion were previously announced, but no attempt was made to have formal papers or set speaking. This free interchange of views in an informal way, under the guidance and stimulus of a skilled conductor, and upon such themes as promotions, teachers' meetings, annual reports, records and blanks, possible supervision districts, and so on, was affirmed by those who were present to be highly profitable.

#### STATE EXAMINATION AND CERTIFICATION OF TEACHERS.

*The Law of 1894.* — Chapter 329 of the Acts of 1894, approved April 28, 1894, reads as follows: —

SECTION 1. The state board of education shall cause to be held, at such convenient times and places as it may from time to time designate, public examinations of candidates for the position of teacher in the public schools of the Commonwealth. Such examinations shall test the professional as well as the scholastic abilities of candidates, and shall be conducted by such persons and in such manner as the board may from time to time designate. Due notice of the time, place and other conditions of the examinations shall be given in such public manner as the board may determine.

SECTION 2. A certificate of qualification shall be given to all candidates who pass satisfactory examinations in such branches as are required by law to be taught, and who in other respects fulfil the requirements of the board; such certificate shall be either probationary or permanent, and shall indicate the grade of school for which the person named in the certificate is qualified to teach.

SECTION 3. A list of approved candidates shall be kept in the office of the secretary of the board, and copies of the same, with such information as may be desired, shall be sent to school committees upon their request.

SECTION 4. The certificates issued under the provisions of this act may be accepted by school committees in lieu of the personal examination required by section twenty-eight of chapter forty-four of the Public Statutes.

SECTION 5. A sum not exceeding five hundred dollars may be annually expended for the necessary and contingent expenses of carrying out the provisions of this act.

*The Law not carried into Effect.*—In accordance with the foregoing law, a plan of procedure was prepared by the secretary, with the assistance of the agents, and adopted by the Board Dec. 6, 1894. This plan is published in full in the fifty-eighth report of the Board,—the first report of the present secretary. It soon became evident that the work involved, if properly done, was beyond the resources of the office and the physical endurance of the secretary, while with the inconsiderable sum of \$500 it was idle to hope for a satisfactory execution of the plan independently of office help. The burden of an unexecuted law, therefore, has weighed on the office since 1894, partially but not satisfactorily relieved by the fact that the situation has been diligently presented in every report since that time. The law was enacted during an interregnum, the previous secretary having resigned his office some time before its consideration and the present secretary not entering on his duties until after its passage. Its principle is an admirable one, but to carry it out in a way to command respect and serve the schools, the appropriation for the purpose should be largely increased.

*A Larger Appropriation needed.*—The appropriation needed for the proper execution of the law should be large enough:—

1. To command the service of a highly competent person, to take full charge of the plan and give it vitality and character.
2. To pay for the temporary service of such persons as may be employed from time to time to act on examining boards and to read the papers of candidates examined.
3. To provide such clerical service as may be needed.
4. To defray the travelling, printing, postage and other expenses incurred in executing the law.

*Inspection of the Normal Schools.* — With the function of administering the examination and certification law there should be joined, at least for the present, the related function of giving to the normal school system as a whole that closer personal inspection which the Board deems necessary, but which existing conditions do not permit. In these two functions the most competent of persons would find a field ample enough to engage his full time and tax his full capacity. So closely would his service bear upon the professional preparation of teachers that he might properly be designated as the supervisor of teachers' qualifications.

*Extension of the Scope of the Law.* — The scope of the law should be extended so as to include superintendents of schools, and all persons, of whatever designation, whom school committees have occasion to appoint as instructors or directors of instruction for the public schools.

*Nature of the Examination.* — Reference should be made to the plan of procedure as published in the fifty-eighth report for a treatment of numerous questions that arise in connection with the execution of the law. It is enough to say here that the examination contemplates written tests, oral questioning, inspection of teaching exercises and an investigation to ascertain record and character, — methods, in short, to determine the totality of a candidate's fitness, rather than the mere percentages to which written papers may be entitled.

*The Basis Voluntary rather than Compulsory.* — The voluntary basis has been wisely chosen for the law. That is to say, teachers may avail themselves of it, but are not required to do so; and the same is true of school committees. This is in sympathy with the general Massachusetts spirit in things educational, — a spirit that invites and tries to convince before

it positively commands. Let the plan stand or fall on its merit. If it has merit, it will stand; and by and by its invitation may yield to requirement. This is the method of evolution, slow enough, indeed, but its gains have deep foundations and are likely to endure. The voluntary system encourages higher standards of qualification than a compulsory one, and its certificates are thus ensured a higher value. A compulsory system would be driven to standards much inferior to those now adopted in many of the towns and cities. If it helped the poorer schools, it might harm the better ones.

#### RESOLUTIONS RELATIVE TO EDUCATION.

*Resolutions of the Massachusetts Teachers' Association.*—The following resolution of the Massachusetts Teachers' Association commends certain measures adopted by the Legislature and the Board of Education, and suggests further ones that merit consideration:—

The Massachusetts Teachers' Association congratulates the Commonwealth upon the progress that has been made during the year now closing. The association especially commends the extension of the policy of expert and professional supervision recently enacted into a law, which will soon become effective in every city and town. Both the wisdom and the economy of such oversight have been abundantly demonstrated, and it is a cause for rejoicing that every municipality will, in the near future, enjoy the benefits thereof.

The advance along this line necessarily creates a demand upon the Commonwealth for additional assistance to many towns in their effort to support their schools in accordance with increasing requirements. Increase of support should imply a corresponding increase of control; hence the State may, and it therefore should, establish and maintain a definite standard of professional training and success on the part of teachers and superintendents whose salaries are paid in part by the State.

The Commonwealth is in duty bound to render assistance in a greater degree than it now renders to those towns whose ability to raise money by taxation, for the purpose of meeting the present educational requirements, is disproportionate to population; but this aid should not be rendered for the purpose of allowing any town the opportunity to lessen its responsibility in the duty of providing means for the schooling of children therein.

The value of the rule of the State Board of Education is recognized in providing that those who apply for admission to State normal schools shall be graduates of high schools in good standing, or, in lieu thereof, shall have received a training equivalent thereto. Provision, therefore, should especially be made in a course of study prepared for high schools in this Commonwealth for instruction in those branches of study in which graduates of high schools will be examined when applying for admission to a State normal school.

A second resolution is in favor of a library post, as embodied in a bill submitted by Hon. Henry Cabot Lodge and Hon. E. P. Lawrence at the last session of Congress, including the free distribution through the mail of printed matter for the blind, as suggested in the report made by the Board to the General Court of 1900.

#### HENRY BARNARD.

On the fifth of July, 1900, occurred the death of Hon. Henry Barnard, LL.D., first United States commissioner of education. To Horace Mann and Henry Barnard more than to any others not only is Massachusetts but the entire country indebted for the new, vigorous and progressive life that has come to the cause of popular education during the past sixty years. He was born in Hartford, Conn., Jan. 24, 1811, in the house in which he died. While a young man he leaped into prominence because of his skill as a debater, his brilliancy as an orator, his grasp of educational principles and conditions and his zeal for improving the common schools. He was the first secretary of the Connecticut State Board of Education and the first commissioner of public instruction for Rhode Island, as well as our first commissioner at Washington. If a measure promised better things for the schools, he was a missionary to enforce it, if not a pioneer to present it as well. Mr. Barnard was never, indeed, in the direct employ of this Commonwealth; but it should be made a matter of record that Massachusetts, through those of her people who know her indirect indebtedness to this eminent educational statesman, recognizes his prolonged and unselfish devotion to the cause that early won his heart, his admirable work in placing school systems on higher planes of efficiency than any previously attained, his



ability and grace in the high positions to which he was called, his splendid service rendered, with a diligence that was heroic and a self-sacrifice that cost him his fortune, in disseminating the finest educational thought of the times, and that buoyancy and hopefulness of temper that illumined the vast accomplishment of his career. If the routes he travelled were less direct, stormy and exciting than those of his brilliant co-worker in Massachusetts, they led towards the same kingdom of better training for the children, as well as to the same high place in the hearts of all who love our schools.

#### A BELATED REPORT.

*First Massachusetts School Returns.*—The close of a century of public school history naturally invites a review of that history. There were no school returns, however, made to the State in 1800. The local records also are fragmentary and scant. The local historian gives glimpses, indeed, sunny or sombre, of the humble school life of the times, but a complete view—one that takes in all the schools of the State, with their teachers, pupils, facts of attendance, cost, studies, spirit and what not—was not dreamed of one hundred years ago as a feasible thing. It was not until 1826 that Massachusetts deemed it important to gather information about the schools as a whole. The returns received in that year by the State were never printed, never summarized even, never made known in any way to the public. Fortunately, however, they were saved, and are now at the office of the Board,—the first school returns ever made to the Commonwealth, and probably the first of their kind ever gathered in the United States. Most of them were originally folded like old-time letters and sealed with wax, no envelopes being used. They were addressed to the Secretary of the Commonwealth, for there was no Board of Education until eleven years later. The postage as written on them varied from ten cents to “ninepence.” Some were entrusted to persons travelling to Boston, for in those days of high postage and scant means it was not an uncommon thing to use other carriage than the United States mail. The returns are from 115 towns only. There were 188 towns that paid no attention either to the Secretary of the Commonwealth

or to the law. The school returns of 1826, tantalizing as they are for their incompleteness and general aridity, are nevertheless superior to those of the years immediately following. Nor by way of compensation were there any reports made in those years by the school committees to the several towns to which the historian can now refer for information. Such reports were not required until 1838. Negligence, indifference, lack of interest, a narrow feeling that the State was meddling in town matters of no concern to itself, the State's failure to follow up delinquent towns with sufficient sharpness, — in such directions as these must we look, if we would know why the school returns went from bad to worse, the towns in increasing numbers paying no more attention to the State law requiring them to make returns than to the edicts of a foreign land. The legislative committee on education in 1832 reported that for the preceding year returns were received "from 86 towns only, being less than one third of the whole number in the Commonwealth." This committee recommended the establishment of a school fund, in the belief that it "might be made useful in promoting the welfare and elevating the character of the common schools;" also, to quote exactly from their report, the "appointment of a superintendent of common schools."

Upon the creation of the school fund in 1834 and the enactment of a law in 1835 conditioning the payment of its income to the towns upon their compliance with the State school requirements, a quick improvement took place in the town responses to inquiries from the State. It was not, however, until the Board of Education was organized in 1837 that the returns became of much value to the State, for it was not until that great step had been taken that the returns began to show reasonable adequacy and the State to make suitable use of them as published and interpreted in the reports of the Board. Since that time they have been gaining in completeness and value. Towns are occasionally tardy in their returns, but absolute failure to make them, which was the rule seventy-five years ago, is to-day unknown. Fear of losing the town's share in the school fund money doubtless has something to do with the universal compliance, and yet it would be unjust to the towns not to credit them with increasing respect not only for law as

embodying wisdom but for law simply as law. Certainly they are cheerfully obeying school laws to-day, of which some sixty years ago one New England legislator, at least, affirmed that they “could not be enforced at the point of the bayonet.” The intense individualism of the town’s people of the past, so splendid in a good cause, so obnoxious in a bad, has been tempered by a fuller knowledge of school conditions and a broader sympathy with measures that aim to improve them.

*Directions issued for the School Returns of 1826.*—Most of the school returns of 1826 were made by school committees; but, what now seems strange to us, there were two made out—and it may be added that they are the most valuable of the lot—by boards of selectmen. The general directions that accompanied the return blank are given here in full, the original text being minutely followed:—

#### COMMONWEALTH OF MASSACHUSETTS.

SECRETARY’S DEPARTMENT, . . . . . MARCH, 9TH, 1826.

BY an Act, passed March 4, 1826, entitled, “An Act further to provide for the Instruction of Youth,” it is made the duty of the Secretary of the Commonwealth, to furnish to each town therein, a Blank Form of a Return, to be made by the School Committees of the several towns, respecting the number and condition of Schools. The accompanying Blank is in the form prescribed by the Act; and the Return is to be made in the same form, annually, “for three years next ensuing, on or before the first day of June in each year,” into the Office of the Secretary of the Commonwealth.

By a Resolution of the House of Representatives, of the 24th of February last, (which was immediately transmitted, by the Secretary, to each town,) Returns, of a different description, were to be made by the Selectmen of the several towns. Notice is now given, that the Resolution aforesaid, was, on the Fourth of March, instant, reconsidered and rescinded, and it no longer remains the duty of the Selectmen of Towns to make the Returns therein required. By the Act abovementioned, the form of Return is changed to that which accompanies this Circular, and the duty is transferred from the Selectmen to the School Committees.

EDWARD D. BANGS,  
*Secretary of the Commonwealth.*

RETURN OF THE SCHOOL COMMITTEE OF CONCERNING  
SCHOOLS IN SAID TOWN.

			NUMBER OF PUPILS IN THE TOWN SCHOOLS.					
			MALES.			FEMALES.		
			Under 7 years.	From 7 to 14.	From 14 and upwards.	Under 7.	From 7 to 14.	From 14 and upwards.
Amount paid for public instruction.	Number of public school districts.	Time of keeping school in the year.						

Number of academies and private schools.	Estimated number of pupils in private schools.	Estimated amount of private tuition fees.	Expense of school books for each pupil in town schools.	Number of children from 7 to 16, not attending school.	Number of persons prevented by expense of school books.	Number of persons over 14 years, unable to read and write.

*Returns by School Committees in 1826.* — The returns of the school committees for 1826 are mainly limited to a bare presentation of the facts called for. Occasionally there are brief comments. Meagre as both facts and comments are, they serve to throw a little light upon the conditions to which they refer. In giving the following illustrations of returns for 1826, such passages as are quoted are given with fidelity to the accuracies and inaccuracies of the original: —

*Boston.* — Boston was the only city in 1826; its population was 58,277. It returned 74 public schools with 7,044 pupils costing \$54,417, and 141 private schools with 3,392 pupils and an estimated tuition of \$80,584. Private school pupils were 32 per cent. of the whole number in 1826, and only 15 per cent. of the whole number in 1900, notwithstanding the parochial school development since 1826. Just before the establishment of primary schools in Boston in 1818, 64 per cent. of the children attending school were in private schools.

“City not divided into districts. The Public send to such schools as they please.” “Schools closed to none thro’ the year who are qualified for admission, excepting the Grammar & writing Schools for Misses fr Dec to April.” Number unable to read and write: “Of our own native population, few, if any.”

*Gloucester.* — “From the short time since the law went into operation; the great extent of the town; and its dispersed population, the Committee find it impracticable to ascertain this [namely, the number of children between 7 and 16], except by taking an entire census, which their avocations will not allow.”

*Lynn.* — Expense of school books for each pupil: “Varies from 20 cents to three dollars annually including stationary.”

*Lynnfield.* — Expense of school books: “This cannot be ascertained it is believed with any sort of accuracy.” “When they have them not [that is, when pupils have not suitable books] they go without them.”

*Marblehead.* — Returns carefully made out and exceptionally full. They give the number of children from 4 to 18, May 20, 1826, as 1,906. The number attending school “Some part of the year,” 1,341. The number in 10 town schools May 20, 728; in 1 academy and 16 private schools May 20, 408. The percentage of the total attendance in private schools was 36; in 1900, it was reported to be nothing. Of pupils in the public schools, 65 per cent. were boys; in the private schools, only 30 per cent. Tuition rates in the private schools varied from \$6 to \$16 per year. The chairman of the school committee wrote of the private schools: “In the schools enclosed within the Brackett [5 out of 16], every branch, both necessary & ornamental, in an English education is taught by persons fully competent. The instructresses of the other private schools are, most of them, capable of teaching every branch, which is usually taught in our best female schools.”

*Salem.* — The most noticeable thing in the Salem returns is the preponderance of the private schools. Of 2,913 children in school, 1,686, or 58 per cent., were in 69 private schools, and 1,227, or 42 per cent., in 17 public schools. Within the ages of 7 and 14, there were 723 boys in the public schools and only 256 girls, while in the private schools there were 648 girls and only 166 boys. Under 7, 146 boys and 107 girls attended public schools, while 231 boys and 298 girls attended private; over 14, 75 boys and 10 girls attended public schools, while 105 boys and 148 girls attended private.

The cost of the public schools was \$8,592.89; the tuition receipts of the private schools, \$18,836.

*Saugus.* — Saugus appropriated \$400 for three school districts. Length of schooling: “Ward No 1 12-months No 2 9-months No 3 6, months.”

*Ashby.* — Length of schooling, 7 months for 1 district, 6 months for 1 district, 4 months each for 3 districts, 3 months each for 2 districts, and 2 months each for 2 districts.

*Bedford.* — Bedford’s returns are accompanied by the following statement of the school committee: “The Committee construe the late School Act of this Commonwealth to require the first Return to be made on or before the 1st of June inst. and therefore, in order to comply with its provisions, find themselves obliged to report a retrospective view of the schools within this Town the last year. As no such Report has heretofore been required, consequently no such one was, at this time, expected, and no pains were taken to collect and preserve data, such as are necessary to enable the Committee to render their Return as accurate as would, to them, have been agreeable. They have, notwithstanding, made out the above from the best means they could obtain and hope their well meant endeavors will be accepted by the Government in lieu of a more perfect Return.”

*Cambridge.* — Cambridge returned 993 pupils, of whom 656, or 66 per cent., were in the town schools, and 337, or 34 per cent., were in private schools.

*Littleton.* — Littleton’s returns contain the following from the school committee: “As it respects our schools, we consider them in a progressive stat. More attention has been paid to them for a few years past, than at any former period: and we are hoping that greater proficiency will be made. Our school accommodations are generally good; and we are pleased to hear of any exertion to advance the instruction of the rising generation. Therefore we have cheerfully adopted the sistem presented by the General Court, and have herein made our return.”

*Stoneham.* — Amount paid for public instruction: “For Man school — \$150 for Womans Schools — \$160.”

Number of public school districts: “Man School District — 1 Woman,s — do — 4.”

Time of keeping school in the year: “For Man school Oct<sup>r</sup> to April Woman do May to Oct<sup>r</sup>.”

*Waltham.* — “Town grant” for public instruction, \$1,200. “\$420 expended by The Boston M. Co. in their own schools in addition to the town grant — S<sup>d</sup> schools are open & free to all in their employment.”

*Grafton.* — Amount paid for public instruction, \$500. Number of public school districts, 9. Length of schooling “equal to 23 months for one School,” or an average of  $2\frac{2}{3}$  months for each district.

*Mendon.* — Number of children from 7 to 16 not attending school, 235. “Number of persons prevented by expense of school books,” that is, prevented from attending school: “Unknown — but, in the opinion of the Committee, there is a great, and general deficiency, in this respect.”

Mendon returned 743 pupils in her town schools and 15 in her private schools for 1826. In 1900, the town reported only 168 different pupils in attendance upon her schools. The decrease is explained in part by a decline in population and in part by a loss of territory, Blackstone having been set off from Mendon in 1845. The number 743 may have been swollen by the duplication of pupils attending winter and summer schools. Population in 1820, 2,254; in 1895, 889.

*Northborough.* — “Granted by the town annually \$500. Raised by subscription 100.”

*Templeton.* — “\$600. Divided among the Districts according to their No. of Scholars. If their No. be less than sixty, they are allowed to assume that No.” There were 7 districts of which one “has 2 School-houses & supports 2 Teachers, the pupils being divided according to age.” Number of pupils, 621, of whom 30 were in private schools. Number of different pupils in 1900, 672. Population in 1820, 1,331; in 1895, 2,915.

*Natick.* — “Three private schools were taught several weeks each in the interests of town schools.”

*Southampton.* — Public instruction for 6 school districts, \$350. “The Board of the Teachers & wood is not Included.”

*Brimfield.* — Public instruction for 10 school districts. Expended in one district for 4 months’ instruction, \$25; in 3 districts for instruction from  $4\frac{1}{2}$  to  $5\frac{1}{2}$  months, \$37.50 each. Highest amount expended in a district, \$139.50.

*Springfield.* — “Our Committee consists of 7 together with the Clergymen of the town — 5 in Number making a Board of Twelve.”

Number of children from 7 to 16 not attending school: “We are not able to make an accurate return — We do not *know* that any abstain *wholly* from school, but the attendance in all the schools is very irregular & uncertain.”

Number of persons “prevented” by expense of school books: “Probably none, exclusively from this cause as parents send their children whether they have books or not — Much of the evil arising

from a deficiency & a want of uniformity in books is entirely obviated by the new law—under which we have already purchased & distributed books.”

*A Group of Franklin Towns.*—Of 27 towns which Franklin County had in 1826, only 7 made returns as required by law. These returns are contrasted with the corresponding items for 1900 in the following comparative view:—

TOWNS.	Expended on public instruction.	Local taxation burden.	Number of pupils reported.	Population.	Length of schooling.
Hawley:					
1826, . .	\$525	\$425	521	1,089	6 mos.
1900, . .	2,164	1,263	70	429	8 mos.
Monroe:					
1826, . .	24	24	103	265	4 mos.
1900, . .	1,640	710	68	305	8 $\frac{1}{4}$ mos.
Montague:					
1826, . .	378	378	381	1,074	5 mos.
1900, . .	23,962	23,408	1,208	6,150	9 $\frac{1}{2}$ mos.
Northfield:					
1826, . .	500	500	542	1,584	4 mos.
1900, . .	5,155	4,252	263	1,966	9 mos.
Orange:					
1826, . .	300	300	329	829	4 $\frac{1}{2}$ mos.
1900, . .	20,833	19,594	704	5,520	9 mos.
Shelburne:					
1826, . .	500	500	367	1,022	7 mos.
1900, . .	6,063	5,085	255	1,508	9 mos.
Whately:					
1826, . .	500	500	435	1,076	7 mos.
1900, . .	1,983	801	102	769	8 $\frac{1}{4}$ mos.

The population given for 1826 is based on the census of 1820; for 1900, on the United States census of 1900. There must be some duplication in the number of pupils reported for 1826, for in several cases that number is an excessive proportion of the entire population.



*Washington.* — “The Town appointed the legal number for Com<sup>tee</sup> two of whom have done nothing the other two are out of town.” The legal number was five, of whom one only signed the returns.

*Roxbury.* — Amount paid for public instruction: “From the Town \$.2000 Trustees of Grammar School \$.1450.”

*Sharon.* — “Five Families not belonging to any District in Town.”

*Stoughton.* — Six districts, in which the length of schooling varied from  $1\frac{1}{4}$  months to 8.

*Weymouth.* — The returns of Weymouth are addressed to the Secretary of the Commonwealth, in language that must have been most refreshing for its unique courtesy and cheeriness: “Having been constituted as the late Act of the Legislature requires, and highly approving of the plan adopted, we cheerfully make the following as our Report for the last year.” Then follows an orderly and pleasing presentation of the facts called for, with a concluding observation that “several important improvements were made in our Schools the last year; and, we think, the cause of Education is now rapidly gaining.”

*Franklin.* — “In some districts the winter schools are lengthened by private subscription.”

*Quincy.* — Amount for public instruction, \$1,360. Number of school districts, 3; number of pupils in the public schools, 461. “The Town of Quincy is also divided into six districts, for primary Schools, and a School kept in each district six months, to which children are admitted at three years of age.” Under the head of private schools, the report says: “One School for young Ladies, in which are taught the branches of education usually taught in high schools, or Academies. Three Schools for children.”

*Kingston.* — “Many of the pupils, who attend the public School, are the same who attend the private schools.”

*Plymouth.* — A letter by the chairman of the school committee to the Secretary of the Commonwealth makes interesting reading after the lapse of seventy-five years: —

“The school Committee of Plymouth, having attended to the subject, transmit the enclosed return concerning schools in this town accompanied with the following explanatory remarks. It has been difficult to determine what and how much was intended each item should embrace. In this town there is one Grammar School, which comprises about fifty male pupils, and is kept by a Master through the year.

“There are two private schools which comprise about seventy pupils, male and female, kept by two Masters. There is also one

private school, which comprises about forty female pupils, kept by a female instructor. The remaining number of private schools comprises children, male and female, between the ages of two and ten years. All the above private schools are kept through the year.

“In the districts the time of keeping the schools varies from two to four months, excepting in two where the school is kept twelve months. In most of the districts also a female school is kept about twenty weeks, commonly commencing about the twentieth of May. These schools are mostly supported by the private contributions of the families who have children to send in their respective districts.

“The inhabitants of this town are highly gratified to witness in the Legislature of Massachusetts a disposition to countenance and support free schools. We fondly anticipate the speedy arrival of that period, when, from that enlightened head, shall be received all that assistance and support which the subject of free education justly merits. What the Legislature has already done has produced a happy excitement in favor of the subject in this town. The town has chosen a committee to carefully superintend, according to the late law, the public free schools and has also voted for their support eleven hundred dollars more than was voted last year. With this augmented assistance of public patronage the school committee are making new arrangements in the schools fully confident that the money may be expended with more advantage to the youth and public welfare. . . . Those children which attend the public schools any part of the year, notwithstanding they may have attended private more than public schools, have been enumerated as attending public schools. Hence you perceive that the number of private pupils is somewhat less in this return than the number which actually attend private schools. A regulation like this was necessary to prevent the pupils being enumerated twice.”

*Rochester.* — “In explanation of the above table, the Committee ask leave to remark, that almost all the private schools in town are under the instruction of female teachers; and in about half the public schools, the more opulent supply the fuel, and board the Masters to prolong the time. This is voluntary on their part, but as beneficial to the indigent as if the whole expense was defrayed from the town treasury. All the children under seven years of age are numbered as scholars, tho’ they are not ordinarily put to school till three or four years old.

“Many children are dependent on others for books; but, on enquiry, the Committee could not learn that any was prevented attending from want of books. The ordinary books used in orthog-

raphy, reading, arithmetic and English grammar would cost about seven dollars, which in the opinion of the Committee, would average seventy five cents per annum. There are three sabbath schools in town, where children who may need them, are furnished with clothes & books gratuitously."

*Nantucket.* — Town schools, 5 ; private schools and academies, 35. Pupils in town schools, 191 ; in private schools, 1,034. Expended on town schools, \$846 ; expenditure for private tuition, \$6,374.

Population in 1820, 7,266 ; in 1900, 3,006. Number of public school pupils in 1900, 409 ; cost of public schools, \$6,984 ; number of private school pupils, none.

*Falmouth.* — Expended \$700 on 19 school districts. Time of keeping school in the year, "2 months." Number of pupils reported, 1,178, and yet the population in 1820 was only 2,370. In 1900 the population was 3,500 ; the number of pupils, 509.

*School Returns by Selectmen in 1826.* — The foregoing returns by school committees were made in accordance with the law of March 4, 1826, in which supervision by school committees was first made compulsory. Previous to that date schools were occasionally supervised, so far as there was any supervision outside of the school district itself, directly by the voters of the town in town meeting assembled, oftener by a special committee made up and given duties according to the pleasure of the town, but commonly by the board of selectmen. It was only a few days before the law of March 4, 1826, required school committees to report the condition of the schools, that the Secretary of the Commonwealth, acting under the resolve of Feb. 26, 1826, had directed the selectmen to make these returns. Though this first direction was promptly countermanded, it nevertheless brought out two reports by selectmen, — reports that have the unique interest of being the only school returns ever made to the State by such officers. They are neatly written, one obviously by the chairman of the selectmen and the other presumably by some one employed to make a fair copy ; but they abound in departures from standard English, — lapses exceedingly common in the writing of the times, and due without doubt to the scant and irregular schooling to which the writers themselves had been restricted in their youth.

The inquiries sent to the selectmen under the resolve, if they may be judged by the answers made to them, — at present, the only clue to their nature, — were more searching than those sent to the school committees under the act. In the former, the Secretary of the Commonwealth seems to have had a free hand; in the latter, he had to follow the statutory directions. If every town in the Commonwealth had responded to the State's inquiries as conscientiously through its school committee as Dracut and Newton through their selectmen, we should know much more about the schools of the State as a whole in 1826 than we now do. These reports are as follows: —

*Dracut.* — “Agreably to a Resolve of the General Court, passed February 24 1826. the Selectmen of the Town of Dracutt Submit the following Statement, viz.

“The Town of Dracutt is divided into ten school Districts and one more is about to be formed —

“The Number of Schollars that usually attend the several schools are, as nearly as we have been able to Ascertain, as follows, viz.

“First District . . . . .	60 Schollars
Second “ . . . . .	60 “
Third “ . . . . .	80 “
Fourth “ . . . . .	35 “
Fifth “ . . . . .	15 “
Sixth “ . . . . .	50 “
Seventh “ . . . . .	20 “
Eighth “ . . . . .	25 “
Ninth “ . . . . .	18 “
Tenth “ . . . . .	18 “
Total . . . . .	<hr/> 381

“These numbers are what usually attend the several schools, to which may be added about one third of the numbers specified for those Schollars who are absent from School and belong to the several Districts.

“There is no Academy in this Town.

“We do not know of any Children who are without any Education.

“There is but one manufactory in this Town, which employs ordinarily about twelve mostly females from seven to fourteen years of age, who enjoy the same means of attending school that other children enjoy.

“The schools in the several Districts are kept from six to twenty weeks each as they have money — The principle of dividing the money among the several Districts is according to the Tax paid by them respectively.

“According to a vote of this Town one third of the money raised is expended, for summer Schools, which are kept by females and two thirds for winter Schools, which are kept by Males — The ordinary qualification of Female Teachers is a knowledge of Reading writing, orthography, Arithmetic, English Grammar and in some instances other branches of Literature; but the first named are usually required; — And of Male Teachers a knowledge of Reading, writing, orthography, Mathematicks, English Grammar, Geography &c. together with a knowledge of Governing a School. — Teachers are usually employed from eighteen to thirty years of age; whose compensation is from twelve to eighteen dollars per month for males and from Six to nine shillings a week for females.

“This Town have granted five hundred dollars per year for the support of their schools for many years past.

“The books usually made use of in our schools are Websters spelling Book, American Preceptor, English Reader, Bible, Pikes, & Adamse’s Arithmetick — Morse’ and Cummins Geography’s and in some instances other books but these are the most usual —

“Our School houses are, with two exceptions, old and badly constructed so that new ones would be well substituted for them — We think our appropriation for the support of schools, but about half what could be expended to good advantage.

“Owing to the small size of our Districts, we think the Lancasterian or monitorial mode of Instruction could not be introduced to great advantage —

“There have been usually in the summer season about three private schools kept in this Town — two by Females and one by a male, who is a competent Instructor.

“The greatest evil, as we conceive in our schooling system, is the great inequality of the Districts, which can only be remedied by Districting the Town anew, which we consider of the greatest importance,

“And we think Instructors have frequently been employed who were not competent, who have not only been no benefit to their Schools, but in many Instances done them an essential injury.

“We are of the opinion that a revision of the school Law would be beneficial —

“The Law as it stands contemplates that all instructors be employed by the Selectmen or a School Committee, which We believe

has not been the practice in many parts of the Commonwealth, notwithstanding the Law, And if the Law were so altered as to allow the several Districts to designate instructors, by a Committee or otherwise, to the school Committee, whose duty it should be to approbate all thus designated, who were well qualified literarily and morally and to repect those who were not thus qualified, we think a greater responsibility would rest upon the Districts and consequently the schools would be improved —

“We think competent Instructors could not be employed short of sixteen dollars per month, as an average.”

*Newton.* — “In compliance with the Resolve of the House of Representatives we the undersigned Selectmen of the Town of Newton would respectfully submit the following statement —

“The whole number of Schools are nine and two private boarding Schools—The private boarding Schools contain 52 Schollars the most of whomb do not belong to Newton— The whole number of Schollars in the Town Schools are 574 — We do not know of any over ten years of age entirely destitute of education — There are employed in our manufactories 66 Children 31 of whomb are Males and 35 are Females between the age of ten and 16 years, 22 of the Males have attended an evening School the past winter at the expence of their employers — In our opinion the Children in Manufactories do not enjoy so good advantages to obtain an education as other Children do, oweing principally to the poverty and neglect of Parents — The two boarding Schools are taught the whole year; Our Public Schools are taught on an average seven months each per year, about  $3\frac{1}{2}$  Months the winter term taught by Males and  $3\frac{1}{2}$  months the Summer term and taught by Females — Our Teachers generally are qualified to teach in the English Language and have the past winter made good progress in the several Schools, their ages vary from 20 to 47 years, their compensation for Females \$3, per week for Males \$7, per week board included — The grant of money for our Public Schools for the last four years has been from 12 to 15 hundred Dollars per year — The Books in general use in our Public Schools are Walkers Dictionary the New Testament English Reader American Reader Columbian Orator Cummings’ Geography Adams’ and Temples Arithmetick Murry’s Grammar and Pickets Spelling Book — The plan of building the three last School houses is the same as the last built in Boston — in our opinion the present provision for the Public Schools is amply sufficient for the present population — in regard to the Lancasterian and Monitorial mode of instruction we do not feel our selves compitent to express an opinion — one great defect in our Schools

has been the want of proper Books which we believe will be completely remedied by the late act of the Legislator, one defect still felt is the neglect of parents and others in not sending their Children to School and in sending them at very unseasonable hours —”

*Survey of the Public Schools in 1826.* — A complete survey of our public school system seventy-five years ago cannot be here attempted. A general idea of the situation may be formed, however, when we contemplate such school returns as we have for those times, and consider further that there was then no compulsory attendance; that the length of schooling showed astonishing diversities, — sometimes from two months to twelve, — even in the same town; that this length was frequently eked out by private subscription; that large numbers of teachers were incompetent; that schools were constantly changing their teachers; that factory work for young children was in vogue; that school buildings were generally poor; that teaching apparatus was almost entirely lacking; that pupils in considerable numbers were without text-books; that the presence of girls in the public schools of the older and wealthier towns was practically discouraged; that the wealth and culture of the State largely patronized private rather than public schools; that the city of Boston declined to admit pupils to its public schools *until they could read and write*, and even then ruled out its girls for half the year; that there was a reprehensible trend, where private schools flourished, to look upon public school children as charity children; that public school secondary education had become nearly extinct; that there were no normal schools, no teachers' associations, no educational journals, no school fund, no measures of State help, no State supervision, — and so on through the long list of things enjoyed to-day, but then unknown. These were the years when the public school spirit of the State seemed to have sunk to its lowest level. Many of the foregoing conditions were the unavoidable accompaniments of the times, the best conditions, in fact, then possible, and are respectfully mentioned as interesting stages in the evolution of our school history. As for the rest, they ranged from the excusable to the discreditable. The worst of them were due in some measure — but

how fully cannot be here discussed—to the State's mistake of 1789 in recognizing subdivisions of the town, known as school districts, as proper units for school administration. These units were so multiplied that large numbers of them were too small and too poor to do justice to their responsibilities, and their powers were so increased that the towns as towns were shorn of about everything like a central control of their schools and a central interest in them. The State was capable of better things, and there were thoughtful people like James G. Carter, the Rev. Charles Brooks, Edmund Dwight, and others who were profoundly stirred to try for these better things. Hence the creation of the school fund, the organization of the Board of Education, the heroic work of Horace Mann, the founding of normal schools, and a long train of agencies whose underlying basis is the great conviction that the supreme interest of Massachusetts, upon which every other interest depends, is the wise education of her boys and girls.

It must not be inferred, however, that there were no bright spots in the public schools of 1826. On the contrary, there were noble-minded and inspiring teachers here and there who worked on sound principles, such as we have come to prize in these later days, even if they were not always conscious of so doing; here and there oases of special school interest; here and there sturdy boys and girls, whom adverse conditions seemed to nerve to higher endeavor; here and there ideals above the average, that led to the establishment of private schools where the public schools fell short; here and there influences from the educational life of Europe beginning to make themselves felt; and, dotting the State like beacon lights, partly a cause and partly a consequence of the decline in public secondary education, were the academies, where the more favored youth of the Commonwealth were initiated into those higher branches of learning for which the colonists had made provision in the public grammar schools, but which in our later provincial and State history had gradually dropped out of the public school system. And since 1826 the Legislature, notwithstanding haltings and occasional backward steps, has shown, on the whole, a keener sensitiveness to the needs of the public schools than the towns it represents. Indeed, we do not



realize that certain precious things which we now take for granted as belonging to the very grain and heart of our public schools might not have been there at all had it not been for the foresight and wisdom of those who have given the system its present character. So that, even in 1826, in spite of the general failure to utilize school resources and possibilities to best advantage, the State was incomparably better off with its public schools than it would have been without them.

#### RECOMMENDATIONS FOR LEGISLATIVE CONSIDERATION.

*Recommendations of the Board.* — The recommendations of the Board for the present year are the following : —

1. That the principal of the school fund be fixed at \$10,000,000, and that the distribution of its income among the towns and for educational purposes be readjusted.

2. That the State Board of Education be authorized to appoint a suitable person to inspect the normal schools, to take charge of the State examination and certification of teachers, and, in general, to promote the professional preparation of persons who aim to give or direct instruction in the public schools.

For a fuller presentation of these recommendations, reference should be made to the annual report of the Board.

*Recommendations of the Secretary.* — The secretary makes the following recommendations : —

1. That the advantage that has recently accrued to the Massachusetts school fund by operation of law (section 3, chapter 408, Acts of 1894) — an advantage that now makes its income substantially the equivalent of that derived from a principal of \$10,000,000 — shall not be withdrawn, but be confirmed by fixing the principal of the fund at \$10,000,000; and that the distribution of the income of the fund among the towns and for educational expenses be readjusted to fit changed conditions.

2. That the scope of the plan for the State examination and certification of teachers be so extended as to include all persons who aim in a professional way to direct instruction in the public schools, and that the plan be placed on a basis sufficiently dignified and strong to command respect and insure its successful execution.

3. That the Board of Education be authorized to appoint a competent person to inspect, under its direction, the normal schools, to take charge of the State examination and certification work, and, in general, to promote improvement in the qualifications of those who teach and direct the teaching in the public schools.

In addition to the foregoing recommendations, which are practically the same as those of the Board, the secretary makes the following, which more particularly concern the discharge of the duties of his office:—

4. That authority be given the office to print portions of the annual report of the Board for separate use, as explained on pages 97 and 98 of this report,—a permission which, if granted, involves no additional appropriation for the purpose.

5. That authority be given the office to print a revised course of study in drawing for the use of teachers in the public schools, at an expense not exceeding \$600.

6. That the appropriation for clerical and messenger service for the office be increased from \$2,000 to \$2,700.

In the case of the last recommendation, the question whether the appropriation should be further increased turns on whether an additional clerk is needed for the office or not. The work for 1900 was too exacting for the present force. It is hoped that it will prove less so for 1901.

#### SPECIAL SCHOOL MEASURES SINCE 1894.

##### *Résumé of Special Measures affecting the Schools since 1894.*

—In addition to the regular work devolved by law upon the Board, important special undertakings have engaged its attention in recent years, — matters whose initiative has cost special study and imposed special responsibility. Once perfected and brought to a completion, they take their places in the ordinary routine of things, and so become, in a way, lifted burdens, or at any rate, burdens much reduced. Among those that have come within the observation or experience of the secretary since the beginning of his service in 1894, the following may be mentioned:—

1. The erection and equipment of four new normal school buildings, the organization of the schools themselves, and the

establishment, in conjunction with their several municipalities, of practice school systems.

2. The renovation, extension and improvement of the remaining six normal school buildings, including the erection and equipment of four new buildings.

3. The raising of the standard of admission to the normal schools, so as to place them all distinctly above the high schools and in line with the colleges.

4. The extension and improvement of practice facilities for students of the normal schools.

5. The revision and strengthening of the school attendance and truancy laws, including with other points the dropping of the old distinction between high schools of a higher grade and those of a lower, the framing of a new and stronger definition for the kind of high school that should be maintained, the lengthening of the public schooling required from six months to eight, and the changing of the compulsory attendance limits from eight years and fourteen years to seven and fourteen.

6. Reformation of the school register and its rules for determining attendance data and the extension of their use to private schools.

7. Unification of the numerous school years of the towns and cities, — a process nearly completed, and promising a greater degree of accuracy in school returns.

8. The systematizing of the school financial returns from the towns and cities, so that, with the aid of a statutory definition of support that now for the first time includes every item that properly belongs there, the present report gives — what former reports have not satisfactorily given — the full taxation cost for the real support of public schools, — a matter of concern to the taxpayer and to the school fund towns.

9. The framing and enforcement of plans for exercising the authority conferred by the Legislature upon the Board to approve all certificates of towns on which the State bases its payments for high school tuition, advances in teachers' salaries and district superintendencies, — an authority that covers items to the amount, at present, of about \$100,000, and carries with it the responsibility of deciding numerous and varied questions incident to its exercise.

10. The bringing to a successful issue of the policy long advocated by the Board, that every town in the Commonwealth should be required to employ a skilled superintendent, who, under the direction of the school committee, should have the care and supervision of the public schools.

*Our Public School System To-day.* — It may be said, as a concluding thought, that our public school system realizes to-day in a general way the temperate ideals of the plain, practical people who pay the bills. It is true, however, that the ideals of superior individuals are higher than those of the community to which they belong, just as the ideals of this community are higher than those of its inferior members. This is inevitable; it has been so since the world began; it is the method as well as the guaranty of the world's progress, — the higher beckoning to the lower to come up and join it. And so about the practice of every growing community as well as of every growing institution in it there must always be a borderland abounding in suggestions of better ways. But in that borderland, as tares among the wheat, are doubtful, wild or baleful suggestions as well. Indeed, if we find ourselves lamenting a conservatism that is slow to respond to what our better schools have shown to be superior ways, it may console us somewhat to look at the other side of the shield and to note two blessed things at least that are always to be found there, — the persistence with which conservatism stands by such good things as it has in possession, and the stubbornness with which it resists such bad things as aim to dispute that possession. Still, we should be as much on our guard against an overweening complacency as against an inconsiderate following after things new and untried, for the one means stagnation and the other chaos. Could the spirit of modern education be properly realized, it would mean a fine adjustment of the work of the school to the needs of the child. He would not be overworked or underworked or wrongly worked. Could the spirit of modern school administration be perfectly realized, there would be an equally fine adjustment of the capacity of the competent teacher to the work that he should do for the child. The teacher, like the child, would not be overworked or underworked or wrongly worked. But in neither case is perfect attainment possible.

This is no reason, however, why higher attainment, though beneath the best, should not be striven for. Some of the best things in education are still in the air for many a school, or if they affect its practice, it is only slightly and in spots. And so the field is an ample one for study and improvement. But whatever its limitations and imperfections, our public school system is the best the ingenuity of the people has yet devised for moulding the minds and character of the young. Until wiser people devise a better, it justly engages all the money, time, study and solicitude now expended upon it to promote its transcendent aims.

FRANK A. HILL,  
*Secretary of the Board.*


John Woodbridge Dickinson, secretary of the Massachusetts Board of Education from 1877 to 1894, was born in Chester, Mass., Oct. 12, 1825, and died at Newton, Feb. 16, 1901. Mr. Dickinson was the youngest of nine children. His earlier years were spent chiefly in Williamstown, Mass., after the fashion of the typical country boy of the times. His school advantages were scant,—a few weeks each winter, after he had reached the age of nine. To secure a liberal education, he attended the Greylock Institute, South Williamstown, and the Williston Seminary at Easthampton, fitting himself for admission to Williams College, which he entered in 1848. He graduated in 1852, with classical honors, and in September of the same year became an assistant teacher in the State Normal School at Westfield. In July, 1856, he was promoted to the principalship of the school, and for twenty-one years discharged the duties of the position with eminent ability and success. Under his progressive administration the Westfield Normal School acquired more than a State reputation. In 1877 Mr. Dickinson succeeded Hon. Joseph White as secretary of the Massachusetts Board of Education. For seventeen years he filled this high office, in ways that promoted the welfare of the schools and added to his distinction as an educational leader. These seventeen years were prolific in educational measures, some of them of deep and far-reaching

consequence, and all of them reflecting the wisdom and diligence of the secretary as well as of the Board and the Legislature. At the close of his service Mr. Dickinson made a simple enumeration of these measures, as follows:—

Within the last seventeen years the old school district system has been abolished and the town system established in its place; free text-books and supplies have been provided for all the children who attend the public schools; a law providing aid for the small towns, to enable them to supply themselves with skilled school superintendence, has been enacted; parental schools for truant children have been established for nearly every county in the State; four new normal schoolhouses, at a cost of \$150,000 each, have been erected, and money for the fifth has already been appropriated; the normal schools have been reorganized, and model schools have been incorporated into their means of professional instruction; the State teachers' institutes have been reorganized, with special reference to illustrating the principles and method of instruction and advanced ideas in new topics of study; the institutes have been increased in number, until this year twenty-nine have been held, with an attendance of over twenty-eight hundred teachers; school committee and school superintendent institutes, a new institution, have been held in sixteen districts of the State, having for their objects a discussion of the duties of school committees and the authority that should be delegated by them to the superintendents, their agents; the country towns have been led to unite their small schools into larger ones, thus greatly increasing their efficiency and diminishing the cost of their support; the number of agents of the Board of Education has been increased from two to six; a State agent, with an assistant, for the introduction and supervision of industrial drawing in the schools, has been appointed; the State school fund has been increased by over one million and a half dollars, and that part of the income distributed to the towns has been withdrawn from the larger towns and limited to towns whose taxable property does not exceed three millions of dollars; a course of studies for the elementary schools has been constructed and distributed to the schools of the State, that is in harmony with the most approved ideas on elementary instruction; the tenure of office of public school teachers has been secured; and seventeen annual reports have been written, that were designed to give a full account of the condition of the public schools, to illustrate as far as possible the principles and methods of public instruction, and to encourage the public school teachers of the Commonwealth to a

thoughtful study of their work, that the best educational results may be produced in training the children, considered as ends in themselves or as citizens of the State.

The impartial historian of our schools may becomingly add that Mr. Dickinson, in the consideration, adoption and execution of the foregoing measures, bore a steady, wise and influential share. As Massachusetts originally honored him in setting him apart to care for her schools, she now honors his memory as she reviews the work he did so loyally and well in her service.







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# FINANCIAL STATEMENTS.

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# MASSACHUSETTS SCHOOL FUND,

1900.

The following statements and tables relative to the Massachusetts school fund are compiled by the secretary of the State Board of Education. They are in no sense to be construed as a report by the commissioners of the school fund, although they contain two documents signed by said commissioners.

*Report of the Commissioners.* — The Treasurer and Receiver-General of the Commonwealth and the secretary of the State Board of Education are the commissioners of the school fund. The condition in detail of the fund, so far as its investments are concerned, appears in the following report of the commissioners to the Legislature:—

HON. JAMES J. MYERS, *Speaker of the House of Representatives.*

SIR: — Under the provisions of section 2 of chapter 43 of the Public Statutes, requiring the commissioners in charge of the Massachusetts school fund to report annually the condition and income of the fund, the undersigned respectfully submit the following:—

Amount of the fund Dec. 31, 1899, . . . . .	\$4,270,548 14
Increase of the fund during the year, under the provisions of chapter 90, Resolves of 1894, . . . . .	100,000 00
Amount of the fund Dec. 31, 1900, . . . . .	\$4,370,548 14

Of this amount, \$540,681.64 was in cash uninvested, and the following is a schedule of the securities in the fund:—

Abington bond, . . . . .	\$3,000 00
Adams bond, . . . . .	25,000 00
Auburn, Me., bond, . . . . .	13,000 00

Avon bond, . . . . .	\$19,000 00
Beverly bond, . . . . .	2,000 00
Beverly note, . . . . .	20,000 00
Boston bond, . . . . .	30,000 00
Boston & Albany Railroad bond, . . . . .	1,500,000 00
Braintree bond, . . . . .	37,000 00
Braintree note, . . . . .	9,300 00
Bristol County note, . . . . .	40,000 00
Brockton bond, . . . . .	157,600 00
Cambridge bond, . . . . .	9,000 00
Chester Fire District note, . . . . .	9,000 00
Chicopee bond, . . . . .	14,000 00
Clinton bond, . . . . .	59,000 00
Clinton note, . . . . .	7,500 00
Cohasset note, . . . . .	10,200 00
Cottage City note, . . . . .	1,500 00
Danbury, Conn., bond, . . . . .	50,000 00
Duxbury note, . . . . .	27,000 00
Easthampton note, . . . . .	31,500 00
Everett bond, . . . . .	53,000 00
Everett note, . . . . .	4,800 00
Fall River bond, . . . . .	90,000 00
Fitchburg bond, . . . . .	13,000 00
Fitchburg Railroad bond, . . . . .	275,000 00
Framingham note, . . . . .	15,000 00
Gloucester bond, . . . . .	5,625 00
Great Barrington Fire District bond, . . . . .	22,000 00
Hanover note, . . . . .	1,500 00
Haverhill bond, . . . . .	8,000 00
Holbrook bond, . . . . .	22,000 00
Holbrook note, . . . . .	1,000 00
Hull bond, . . . . .	28,000 00
Hull note, . . . . .	34,091 50
Huntington note, . . . . .	4,000 00
Ipswich bond, . . . . .	53,000 00
Leicester Water Supply District bond, . . . . .	25,000 00
Leominster note, . . . . .	27,400 00
Lewiston, Me., bond, . . . . .	500 00
Lynn bond, . . . . .	258,000 00
Malden bond, . . . . .	25,000 00
Mansfield bond, . . . . .	28,500 00
Marlborough bond, . . . . .	1,000 00
Maynard bond, . . . . .	16,000 00
Maynard note, . . . . .	7,000 00
Medway note, . . . . .	1,000 00
Meriden, Conn., bond, . . . . .	12,000 00
Methuen note, . . . . .	8,000 00
Middleborough bond, . . . . .	4,000 00
Millis bond, . . . . .	1,000 00

Needham bond, . . . . .	\$20,000 00
New Bedford bond, . . . . .	13,000 00
New Britain, Conn., bond, . . . . .	65,000 00
Newburyport bond, . . . . .	28,000 00
New Hampshire bond, . . . . .	2,000 00
Newton bond, . . . . .	7,000 00
North Adams note, . . . . .	25,000 00
North Attleborough bond, . . . . .	97,000 00
North Attleborough Fire District bond, . . . . .	15,000 00
Orange bond, . . . . .	15,000 00
Provincetown bond, . . . . .	46,000 00
Quincy bond, . . . . .	34,000 00
Randolph bond, . . . . .	10,000 00
Reading bond, . . . . .	10,000 00
Rehoboth note, . . . . .	5,000 00
Revere note, . . . . .	2,000 00
Russell note, . . . . .	2,500 00
Saugus note, . . . . .	10,450 00
Scituate note, . . . . .	10,000 00
Sharon bond, . . . . .	5,000 00
Somerset note, . . . . .	15,000 00
Somerville bond, . . . . .	12,000 00
South Hadley note, . . . . .	9,600 00
South Hadley Fire District note, . . . . .	44,500 00
Stoughton bond, . . . . .	49,000 00
Swampscott note, . . . . .	9,000 00
Turner's Falls Fire District bond, . . . . .	10,000 00
Uxbridge bond, . . . . .	27,000 00
Waltham bond, . . . . .	2,000 00
Warren note, . . . . .	2,700 00
Watertown bond, . . . . .	5,000 00
Watertown note, . . . . .	10,000 00
Waterville, Me., bond, . . . . .	20,000 00
Webster bond, . . . . .	23,000 00
Westborough note, . . . . .	2,800 00
Westfield bond, . . . . .	5,500 00
Westford note, . . . . .	3,000 00
West Newbury note, . . . . .	800 00
West Springfield bond, . . . . .	16,500 00
Whitman bond, . . . . .	5,000 00
Winthrop note, . . . . .	9,500 00
Woonsocket, R. I., bond, . . . . .	7,000 00
Total, . . . . .	<hr/> \$3,829,866 50

The following table shows the amount of the principal of the school fund as it stood at the close of business, December 31, from 1891 to 1900, both inclusive, and the annual income for

the same term, as shown by the books of the Treasurer and Receiver-General:—

YEAR.	Principal.	Income.
1891, . . . . .	\$3,655,761 85	\$138,625 68
1892, . . . . .	3,655,761 85	167,229 55
1893, . . . . .	3,670,548 14	167,258 23
1894, . . . . .	3,770,548 14	167,210 54
1895, . . . . .	3,870,548 14	172,729 65
1896, . . . . .	3,970,548 14	175,165 64
1897, . . . . .	4,070,548 14	189,808 71
1898, . . . . .	4,170,548 14	204,612 61
1899, . . . . .	4,270,548 14	208,462 61
1900, . . . . .	4,370,548 14	213,066 18

The effect of the increase in the fund by the annual addition authorized by chapter 90 of the Resolves of the year 1894, which has been paid in to the amount of \$700,000, will be readily seen in the increase of income for 1900.

FRANK A. HILL,

EDWARD S. BRADFORD,

*Commissioners of the Massachusetts School Fund.*

*Statutory Use of the Income by the Towns.*—The use to be made of the income of the school fund by the towns that receive it is definitely fixed by section 6, chapter 43 of the Public Statutes:—

The income of said fund received by the several cities and towns shall be applied by the school committees thereof to the support of the public schools therein; but said committees may, if they see fit, appropriate therefrom any sum, not exceeding twenty-five per cent of the same, to the purchase of books of reference, maps, and apparatus for the use of said schools.

One would suppose that nothing could be clearer than the intent of the Legislature:—

1. To place the application of the income received by the town in the hands of the school committee.

2. And to limit that application to the support of the public schools, subject to the qualification relating to books of reference, etc.

Notwithstanding the definiteness of the law's intent, there is reason to believe that control of the income is not always exercised by the school committee, and that the income itself does not always go to the support of the public schools. Accordingly, the following notice has been sent out by the commissioners of the fund:—

STATE HOUSE, BOSTON, Jan. 1, 1901.

RELATION OF TOWNS TO THE INCOME OF THE MASSACHUSETTS  
SCHOOL FUND.

The commissioners of the Massachusetts school fund call the attention of the school committees, the selectmen and the treasurers of towns sharing in the distribution of the income of the school fund to the following provisions of the law relative thereto:—

1. Each town's annual share in the income of the school fund, payable to the treasurer thereof on the 25th of January (section 4, chapter 43 of the Public Statutes), is subject to the control, not of the selectmen nor of the town itself, but of the school committee (section 6, chapter 43 of the Public Statutes).

2. Each town's share in the income must be applied exclusively to the support of the public schools. Any diversion of such share from the purpose designated by law is illegal (section 6, chapter 43 of the Public Statutes).

If the treasurer of the town fails to keep a separate and detailed school fund account, but turns the school fund money into the general appropriation for schools, it becomes difficult, if not impossible, to follow the disposition of it. It may be expended for other school purposes than those of support; the town or the selectmen may direct or control its expenditure, when the State has made it the duty of the school committee to do so; or a portion of the money may work its way into unexpended balances, and so revert to the town treasury, from which, its character as school fund money having been lost sight of, it may be subsequently appropriated for other than school purposes. Even when the omission to keep a separate school

fund account does not lead in fact to a diversion of the school fund income from its true purpose, it leads to more or less of public uncertainty as to the control and disposition of such income. The commissioners of the school fund, therefore, request:—

1. That the treasurer in every school fund town shall keep a separate and detailed school fund account.

2. That the treasurer shall make no payment from the school fund account unless such payment is primarily and duly authorized by the school committee.

The scrupulous care shown by many of the school fund towns in keeping their school fund accounts is recognized. It is hoped that the school committees, the selectmen and the treasurers of towns that have not exercised such care will appreciate not only the propriety of exercising it but the necessity of doing so, if they would respect the letter and the spirit of the school fund legislation. It ought to be possible for every school fund town, if called upon at any time to do so, to furnish the commissioners a satisfactory statement of its school fund account.

EDWARD S. BRADFORD,

*Treasurer and Receiver-General,*

FRANK A. HILL,

*Secretary of the State Board of Education,*

*Commissioners of the Massachusetts School Fund.*

*The Recent Increase in the Income of the School Fund.*—The history of the school fund is given in the annual report of the Board, pages 16–19, including an account of the large increase that has come, or will come if the law is not changed, to its income by operation of section 3, chapter 408, Acts of 1894, relative to the Fitchburg Railroad securities loan sinking fund. This section reads as follows:—

The income of said bonds and stock shall be devoted to the payment of the interest on said scrip or certificates of debt, and in case said income is more than sufficient in any year to pay said interest *the excess shall be added to the income of the Massachusetts school fund for that year*, and in case in any year the income is insufficient to pay said interest, the deficiency shall be payable from any money in the treasury, not otherwise appropriated.

In explanation of this section, it needs to be said that during the year 1894 the bounty loan bonds, the Troy & Green-



field Railroad bonds and the Danvers Lunatic Hospital bonds, in all amounting to \$9,602,148.90, became due, and it was necessary that the State should take some action for the proper disposal of the securities in the several sinking funds pledged for the redemption of these bonds, in order to secure the money for the payment thereof. Among these securities were bonds of the Fitchburg Railroad Company, issued in 1887, running fifty years, bearing interest at the rate of 3 per cent. per annum for the first five years,  $3\frac{1}{2}$  per cent. per annum for the second five years and 4 per cent. per annum for the remainder of the time. The amount of these bonds was \$5,000,000. In the financial condition of the country at that time it did not seem good public policy to put these bonds on the market; therefore, under authority of chapter 408 of the Acts of 1893, the Treasurer and Receiver-General issued scrip, known as the Fitchburg Railroad securities loan, to the amount of \$5,000,000, bearing interest at the rate of  $3\frac{1}{2}$  per cent. per annum, to run twenty years, and established a sinking fund for the redemption of this scrip, known as the Fitchburg Railroad securities loan sinking fund, into which were put these bonds of the Fitchburg Railroad Company to the amount of \$5,000,000, as well as the 50,000 shares of common stock of the Fitchburg Railroad Company, with a nominal value of \$5,000,000 more, but at the time regarded as of little value, also owned by the Commonwealth. Thus this sinking fund contained securities at the outset amounting nominally to \$10,000,000, or to double the amount of the State indebtedness thus secured. Both bonds and stocks were placed there in the faith, or, at least, in view of the possibility, that they would be worth more in time, and that it would be unwise, therefore, for the State to make a needless sacrifice by parting with them prematurely. An excess of income from this sinking fund was also clearly foreseen, although no one would have then dared to predict its present magnitude.

Under chapter 426 of the Acts of 1900, the Boston & Maine Railroad purchased the 50,000 shares of the Fitchburg Railroad securities loan sinking fund, paying therefor \$5,000,000 in fifty-year 3 per cent. gold bonds, bearing interest from July 1, 1900. In this way the sinking fund came into possession

of securities having a full market value of \$10,000,000, instead of a nominal value of \$10,000,000 and a market value much less. Since the Fitchburg half of these securities pays 4 per cent. and the Boston & Maine half 3 per cent., while the State scrip thus doubly secured pays  $3\frac{1}{2}$  per cent., it follows that the excess of income is  $3\frac{1}{2}$  per cent. on \$5,000,000. By law this excess goes to the income of the school fund so long as the sinking fund continues, that is, until the year 1913, when the State scrip, issued in 1893 for twenty years, reaches maturity and is paid. Then the sinking fund will cease to exist, there will be no further excess of income to swell that of the school fund, and the surplus of \$5,000,000 from the fund will be released, to be disposed of as the Legislature sees fit. All this turns, of course, on leaving the legislation of 1894 undisturbed.

In this connection it should be noted that it has frequently been ordered that certain classes of contingent income, that is, income whose value at the time of the legislation could not be foreseen, should be paid into the school fund, as, for example, (1) moneys from land in Maine (1834), (2) claims on the United States for military services (1834), (3) "all the avails of the moiety of the sales" of certain Back Bay lands (1859), (4) "any moneys which may hereafter be received into the treasury of the Commonwealth, the disposition of which is not otherwise provided for (1890)," and (5) the excess of income from the Fitchburg Railroad securities loan sinking fund (1893); but occasionally, when large sums of money have come within view of the school fund from such uncertain sources, they have been used, or considerable portions of them, for other purposes. Indeed, the principal of the school fund would probably have reached five million dollars by the present time and been well started towards ten millions, had all the sums designated for it by law previous to the "excess of income" statute of 1893 been permitted to reach it.

The excess of income from the Fitchburg Railroad stock loan sinking fund is now, because of the wise management of the State government, so far in excess of original expectation that other disposition of it than that originally indicated has been recommended. Friends of the school fund and be-

lievers in the good that has been and may be wrought for the public schools through its judicious use naturally desire to retain and make secure such advantages as legally come to it by the operation of the various laws providing for its increase.

*Distribution of the Income.* — The income of the fund is distributed in accordance with chapter 177, Acts of 1891, as amended by chapter 272, Acts of 1893, the statute as thus amended reading as follows:—

SECTION 1. One half of the annual income of the school fund of the Commonwealth shall be apportioned and distributed, without a specific appropriation, for the support of public schools, and in the manner following, to wit:— Every town complying with all laws in force relating to the distribution of said income and whose valuation of real and personal estate, as shown by the last preceding assessors valuation thereof, does not exceed one half million dollars, shall annually receive three hundred dollars: *provided*, that any such town for any year in which its rate of taxation shall be eighteen dollars or more on a thousand dollars, shall receive fifty dollars additional. Every such town whose valuation is more than one half million dollars and does not exceed one million dollars, shall receive two hundred dollars; and every such town whose valuation is more than one million dollars and does not exceed two million dollars, shall receive one hundred dollars; and every such town whose valuation is more than two million dollars and does not exceed three million dollars, shall receive fifty dollars. The remainder of said half shall be distributed to all towns whose valuation does not exceed three million dollars and whose annual tax rate for the support of public schools is not less than one sixth of their whole tax rate for the year, as follows:— Every town whose public school tax is not less than one third of its whole tax shall receive a proportion of said remainder expressed by one third; every such town whose school tax is not less than one fourth of its whole tax shall receive a proportion expressed by one fourth; every such town whose school tax is not less than one fifth of its whole tax shall receive a proportion expressed by one fifth; and every such town whose school tax is not less than one sixth of its whole tax shall receive a proportion expressed by one sixth. All money appropriated for other educational purposes, unless otherwise specially provided, shall be paid from the other half of said income. If the income in any year exceeds such appropriations the surplus shall be added to the principal of said fund.

It will be noticed that the distribution of so much of the income as goes to the towns is based on two considerations :—

1. The valuation of the towns,—those towns having the lowest valuations receiving the largest amounts, and those having the highest valuations, provided they fall below \$3,000,-000, receiving the smallest amounts.

2. The relation of the school tax to the total tax,—those towns in which this ratio is the largest receiving the most help, and those in which it is the smallest receiving the least.

Certain sums are given outright to the towns, in accordance with the former principle. The rest of that moiety of the income available for such distribution is divided among the same towns, under the latter principle.

The following statement exhibits the application of the former principle to the distribution of the income made Jan. 25, 1900 :—

	Number of towns.	Amount allowed each.	Totals.
1. Under \$500,000, . . . . .	85	\$300	\$25,500
2. Under \$500,000, with tax rate above \$18,	24*	50†	1,200
3. Between \$500,000 and \$1,000,000, . .	71	200	14,200
4. Between \$1,000,000 and \$2,000,000, .	64	100	6,400
5. Between \$2,000,000 and \$3,000,000, .	30	50	1,500
Totals, . . . . .	250	—	\$48,800

\* Included under 85 towns in group 1.

† In addition to \$300.

Under the second principle, eligible towns are to receive shares in the amount to be distributed represented by the fractions  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$  and  $\frac{1}{6}$  respectively, or, if reduced to a common denominator, by the fractions  $\frac{20}{60}$ ,  $\frac{15}{60}$ ,  $\frac{12}{60}$  and  $\frac{10}{60}$  respectively, according as these towns belong in the several classes to which the fractions refer. That is to say, 4 representative towns belonging respectively to the four classes mentioned would receive in the aggregate an amount represented by the sum of these four fractions, or  $\frac{57}{60}$ . Conse

quently, 42 towns of the first class would receive 42 times  $\frac{20}{60}$ , or  $\frac{840}{60}$ ; 105 towns of the second class, 105 times  $\frac{15}{60}$ , or  $\frac{1575}{60}$ ; 73 towns of the third class, 73 times  $\frac{12}{60}$ , or  $\frac{876}{60}$ ; and 17 towns of the fourth class, 17 times  $\frac{10}{60}$ , or  $\frac{170}{60}$ . All of the towns in the four classes, 237 in number, would receive, therefore, a total of  $\frac{3535}{60}$ . But the amount of income available Jan. 25, 1900, for the towns was \$93,651.12, of which \$48,800 was distributed under the first principle, as already shown, leaving the remainder, or \$44,851.12, to be distributed under the second principle. Therefore,  $\frac{3461}{60}$ , which is the fractional representation of what the 237 towns are to receive, must equal \$44,851.12, which is the amount in dollars and cents the same towns are to receive. From this it follows that  $\frac{1}{60}$  equals  $\$12.959\frac{1}{10}$ ;  $\frac{20}{60}$ , what each town of the first class receives, equals \$259.18; and  $\frac{840}{60}$ , what the 42 towns of the first group receive, equals \$10,885.56. In like manner, the amounts are worked out for the other classes.

The following statement exhibits the application of the second principle, as just explained, to the distribution of Jan. 25, 1900:—

School tax as compared to total tax.	Number of towns.	Amount allowed each.	Totals.
1. Not less than $\frac{1}{3}$ , . . . . .	42	\$259 18	\$10,885 56
2. Not less than $\frac{1}{4}$ , . . . . .	105	194 38	20,409 90
3. Not less than $\frac{1}{5}$ , . . . . .	73*	155 51*	11,352 63
4. Not less than $\frac{1}{6}$ , . . . . .	17	129 59	2,203 03
5. Less than $\frac{1}{6}$ , . . . . .	13	—	—
Totals, . . . . .	250	—	\$44,851 12

\* Forty towns receive \$155.52, instead of \$155.51.

If the amounts allowed under the first principle are combined with the amounts allowed under the second, the 250 school fund towns will fall into 24 groups, as follows:—

Towns grouped according to amounts allowed.	Number of towns.	Amount allowed each.	Totals.
Group 1, . . . . .	1	\$609 18	\$609 18
Group 2, . . . . .	6	559 18	3,355 08
Group 3, . . . . .	7	544 38	3,810 66
Group 4, . . . . .	5	505 51*	2,527 59
Group 5, . . . . .	23	494 38	11,370 74
Group 6, . . . . .	4	479 59	1,918 36
Group 7, . . . . .	18	459 18	8,265 24
Group 8, . . . . .	25	455 51*	11,387 88
Group 9, . . . . .	4	429 59	1,718 36
Group 10, . . . . .	28	394 38	11,042 64
Group 11, . . . . .	12	359 18	4,310 16
Group 12, . . . . .	22	355 51*	7,821 34
Group 13, . . . . .	7	350 00	2,450 00
Group 14, . . . . .	1	329 59	329 59
Group 15, . . . . .	5	309 18	1,545 90
Group 16, . . . . .	3	300 00	900 00
Group 17, . . . . .	35	294 38	10,303 30
Group 18, . . . . .	11	255 51*	2,810 65
Group 19, . . . . .	12	244 38	2,932 56
Group 20, . . . . .	5	229 59	1,147 95
Group 21, . . . . .	10	205 51*	2,055 17
Group 22, . . . . .	2	200 00	400 00
Group 23, . . . . .	3	179 59	538 77
Group 24, . . . . .	1	100 00	100 00
Totals, . . . . .	250	—	\$93,651 12

\* For 40 towns in all the amount apportioned each is 1 cent more.

*Amount of Income available for the Towns Jan. 25, 1901.*—The income of the school fund for 1900 was \$213,066.18. The amount available for the towns is one half of this sum, or \$106,533.09. By a ruling of the Attorney-General an interpretation of the statutes that has given the towns for some time past a little less than one half of the full income has been discontinued, and hereafter they will receive the full half.

*Table of Data relative to School Fund Towns.*—The following table gives a detailed comparative view of important facts relative to the school fund towns. Although the table explains itself, it is well to emphasize certain features of it, so as to guard against possible misinterpretations, as, for example, the following:—

1. The table does not deal with expenditures for *school buildings*, either for repairs or new construction, but limits itself exclusively to expenditures for *school support*. Expen-

ditures for buildings are necessarily irregular, variable and uncertain, and cannot be trusted, like those for support, to measure the average annual local burden of the schools.

2. The proportion of the municipal tax expended for school support is the measure of the local burden for such support. It is what the town itself actually raises and expends, exclusive of and in addition to what it receives from the State, for such support. So, too, the amount raised by taxation and expended for school support for each child in the average membership is what the town itself unaided expends for such child. The total expenditure for such child is increased, of course, by the State's contributions for the purpose. It is not figured out in the table, but can be computed from it.

3. The data of the table are taken from the sworn certificates of school committees, from the aggregates of polls, property, taxes, etc., compiled in the office of the Secretary of the Commonwealth, and from the report of the State Auditor. There are, however, occasional minor resources, outside of local taxation, that increase a little the money available for school support, but which the table does not present, as, for instance, receipts of tuition money from other towns, voluntary contributions, and the like. Some towns, on the other hand, do not expend all their receipts from the State on their schools, as when, for instance, they permit unexpended balances from the school fund to find their way into the general treasury, where they become available for other town purposes than those to which the State has pledged them, — a wholly illegal use of such money, and one calculated to shake the faith of the State in the local need of school aid from the State. Thus the table, while it gives with completeness and exactness the facts it professes to give, does not absolutely and minutely cover the entire school situation. It gets reasonably close to that situation, however, and is sufficiently trustworthy to guide State consideration of it.

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS.

## Group 1.

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOU. SAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
1. West Stockbridge, . . . .	\$437,409	225	\$1,944	\$15 70	\$18 20	\$18 20	\$7 89	\$8 04	\$7 40	.41	\$14 40	\$609 18	\$737 50

## Group 2.

1. Boylston, . . . .	\$411,237	90	\$4,569	\$9 00	\$10 20	\$13 90	\$3 10	\$4 40	\$4 08	.29	\$18 67	\$559 18	\$223 21
2. Montgomery, . . . .	141,207	46	3,070	13 50	10 00	10 00	4 66	4 55	4 30	.43	13 23	559 18	525 00
3. Oakham, . . . .	311,000	93	3,344	11 20	10 70	13 80	4 43	4 56	3 67	.27	12 28	559 18	106 50
4. Sunderland, . . . .	441,945	105	4,209	12 00	12 00	11 50	4 46	4 45	5 58	.49	23 51	559 18	346 95
5. Tyngsborough, . . . .	408,597	83	4,923	16 60	16 10	15 50	7 49	5 97	6 29	.40	31 00	559 18	605 00
6. Wales, . . . .	234,009	116	2,276	13 50	13 50	15 20	7 43	5 66	4 71	.31	10 74	559 18	658 00

## Group 3.

1. Charlemont, . . . .	\$349,130	188	\$1,857	\$22 00	\$22 00	\$24 00	\$5 82	\$7 02	\$7 23	.30	\$13 44	\$544 38	\$1,159 83
2. Florida, . . . .	134,548	86	1,797	22 00	22 00	22 00	6 57	6 58	5 83	.27	10 48	544 38	559 60



3. Granville,	.	.	.	.	356,496	188	1,896	24 00	24 00	24 00	8 00	8 05	6 92	.29	13 13	544 38	462 50
4. Heath,	.	.	.	.	156,644	93	1,683	19 00	18 50	20 50	6 11	6 10	6 54	.32	11 01	544 38	433 50
5. New Salem,	.	.	.	.	277,430	151	1,837	21 00	19 00	21 00	5 42	5 77	6 11	.29	11 23	544 38	298 50
6. Shutesbury,	.	.	.	.	168,260	44	3,824	20 00	20 00	20 00	6 18	5 63	3 79	.19	14 52	544 38	283 56
7. Windsor,	.	.	.	.	192,238	82	2,344	20 80	18 40	16 30	4 69	6 14	4 89	.30	11 49	544 38	446 00

## Group 4.

1. Erving,	.	.	.	.	\$397,721	190	\$2,063	\$19 00	\$21 00	\$21 00	\$5 10	\$5 13	\$6 83	.33	\$14 32	\$505 51	\$828 48
2. Monroe,	.	.	.	.	138,384	50	2,768	14 30	21 00	32 50	4 32	5 07	5 13	.16	14 20	505 52	454 37
3. Richmond,	.	.	.	.	325,339	123	2,645	17 00	18 90	21 60	4 70	4 62	4 56	.21	12 07	505 52	666 75
4. Savoy,	.	.	.	.	157,765	87	1,813	22 00	23 00	22 00	5 01	5 48	4 43	.20	8 04	505 52	342 00
5. Tolland,	.	.	.	.	143,857	62	2,320	20 00	20 00	18 00	4 25	4 25	4 63	.26	10 76	505 52	236 00

## Group 5.

1. Ashby,	.	.	.	.	\$482,781	130	\$3,714	\$15 00	\$15 00	\$17 00	\$3 83	\$4 40	\$4 79	.28	\$17 82	\$494 38	\$500 00
2. Berkley,	.	.	.	.	388,819	141	2,758	11 00	12 00	15 00	4 12	4 08	4 99	.33	13 77	494 38	275 00
3. Berlin,	.	.	.	.	496,100	119	4,169	9 00	9 50	12 00	2 65	2 65	3 59	.30	15 00	494 38	997 40
4. Bernardston,	.	.	.	.	390,179	94	4,151	12 50	14 50	13 50	5 56	5 18	2 32	.17	9 67	494 38	65 50
5. Bolton,	.	.	.	.	490,853	113	4,339	11 50	14 00	12 00	3 99	3 99	4 70	.39	20 42	494 38	319 86
6. Foxborough,	.	.	.	.	236,802	58	4,082	12 00	12 50	15 50	3 12	3 69	3 61	.23	14 74	494 38	606 00
7. Eastham,	.	.	.	.	309,720	64	4,839	9 60	9 60	9 20	3 02	2 90	2 90	.32	14 06	494 38	499 25

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS — *Continued.*  
*Group 5 — Concluded.*

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
8. Gill, . . . . .	\$486,186	98	\$4,961	\$11 00	\$11 00	\$11 00	\$3 01	\$3 00	\$3 30	.30	\$16 40	\$194 38	\$858 40
9. Granby, . . . . .	460,766	150	3,072	13 70	14 30	13 60	3 70	4 17	5 40	.40	16 61	494 38	380 50
10. Hampden, . . . . .	383,179	89	4,305	11 50	11 75	11 75	3 49	3 64	4 10	.35	17 69	494 38	132 98
11. Lakeville, . . . . .	456,832	115	3,972	11 50	11 25	14 60	2 87	3 11	4 01	.27	15 95	494 38	421 00
12. Lanesborough, . . . . .	457,568	115	3,979	14 50	15 00	15 50	3 93	4 06	4 05	.26	16 14	494 38	10 00
13. Middlefield, . . . . .	197,425	106	1,863	13 00	15 00	15 00	4 20	4 40	2 74	.18	5 12	494 38	835 25
14. North Reading, . . . . .	494,760	138	3,585	14 30	16 00	16 60	6 29	5 17	5 84	.35	20 96	494 38	645 00
15. Otis, . . . . .	203,580	60	3,443	12 00	15 00	15 00	3 95	5 09	2 74	.18	9 45	494 38	230 00
16. Peru, . . . . .	118,924	37	3,214	15 55	12 25	15 00	4 66	4 53	2 49	.17	8 02	494 38	192 00
17. Prescott, . . . . .	160,810	58	2,773	14 10	12 40	13 70	4 95	3 69	4 38	.32	12 16	494 38	425 99
18. Rowe, . . . . .	172,760	60	2,879	18 50	16 50	15 60	6 50	5 95	7 66	.49	22 06	494 38	590 95
19. Royalston, . . . . .	483,523	119	4,063	12 00	15 00	10 00	2 76	5 24	3 12	.31	12 71	494 38	408 00
20. Russell, . . . . .	491,004	119	4,126	11 00	15 50	17 00	3 12	4 56	3 61	.21	14 90	494 38	180 50
21. Truro, . . . . .	329,815	132	2,499	16 00	16 00	16 00	5 40	5 06	6 48	.41	16 20	494 38	107 40

22. West Tisbury,	.	.	.	390,667	47	8,312	6 00	6 00	1 96	1 93	2 71	.45	22 56	404 38	320 00
23. Westhampton,	.	.	.	212,964	93	2,290	14 50	17 00	4 61	4 61	5 01	.30	11 47	494 38	578 34

*Group 6.*

1. Chesterfield,	.	.	.	\$279,308	80	\$3,491	\$17 10	\$18 00	\$16 00	\$3 51	\$3 72	\$3 91	.24	\$13 67	\$479 59	\$212 30
2. Clarksburg,	.	.	.	237,638	166	1,432	20 00	20 00	20 00	4 81	3 86	5 65	.28	8 09	479 59	580 00
3. Hawley,	.	.	.	146,504	60	2,442	27 00	22 00	22 00	5 93	4 03	6 15	.28	15 02	479 59	786 17.
4. Leyden,	.	.	.	135,254	59	3,309	12 00	18 00	15 90	2 38	3 66	3 70	.23	12 26	479 59	392 43

*Group 7.*

1. Auburn,	.	.	.	\$577,110	259	\$2,228	\$15 40	\$14 80	\$18 40	\$6 56	\$6 36	\$6 92	.33	\$15 44	\$459 18	-
2. Bellingham,	.	.	.	745,910	258	2,891	14 50	14 20	14 00	5 65	5 42	5 48	.39	15 87	459 18	\$416 66
3. Brewster,	.	.	.	524,775	126	4,165	13 00	14 00	15 00	4 96	5 01	5 73	.38	23 87	459 18	260 42
4. Buckland,	.	.	.	557,669	247	2,258	20 00	20 00	20 00	6 64	7 24	7 26	.36	16 41	459 18	517 00
5. East Longmeadow,	.	.	.	491,235	293	1,643	15 25	12 75	15 50	5 40	5 32	7 48	.48	12 30	459 18	1,523 36
6. Enfield,	.	.	.	817,740	175	4,673	9 50	10 00	9 50	4 41	3 90	2 66	.28	12 47	459 18	465 00
7. Hinsdale,	.	.	.	555,428	253	2,195	17 00	17 30	22 60	5 63	6 53	6 96	.31	15 29	459 18	39 50
8. Littleton,	.	.	.	890,260	204	4,364	13 33	13 33	13 50	5 29	4 79	5 84	.43	25 52	459 18	250 00
9. Longmeadow,	.	.	.	814,385	97	8,306	8 20	9 50	11 00	3 70	3 54	3 91	.36	32 87	459 18	214 08
10. Orleans,	.	.	.	557,318	188	2,964	14 00	14 00	14 00	6 91	7 34	7 10	.51	21 05	459 18	208 33
11. Raynham,	.	.	.	761,336	223	3,414	14 00	13 10	20 20	5 19	5 50	4 94	.24	16 88	459 18	389 50
12. Salisbury,	.	.	.	657,970	214	3,075	12 00	12 20	12 40	3 91	4 55	5 20	.42	16 14	459 18	-
13. Sandwich,	.	.	.	906,800	214	4,237	16 00	14 00	16 00	4 89	5 16	5 68	.36	24 11	459 18	562 50

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS—, *Continued.**Group 7—Concluded.*

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
4. Sterling, . . . . .	\$870,980	195	\$4,467	\$13 60	\$12 60	\$14 50	\$4 32	\$4 76	\$4 18	.29	\$18 08	\$459 18	\$500 00
5. Wellfleet, . . . . .	622,443	135	4,618	10 00	12 50	14 00	4 84	4 96	4 64	.32	21 45	459 18	138 89
6. West Boylston, . . . . .	877,598	449	1,955	17 00	12 00	9 00	10 12	11 04	11 09	1.23*	21 69	459 18	755 50
7. Wilbraham, . . . . .	770,340	222	3,470	12 80	10 00	9 00	4 80	5 05	5 87	.65	20 38	459 18	630 05
8. Williamsburg, . . . . .	851,322	368	2,313	12 50	14 50	16 20	4 27	5 48	5 92	.37	13 72	459 18	756 57

\* Correct. See chapter 497, Acts of 1897.

*Group 8.*

1. Becket, . . . . .	\$426,650	144	\$2,963	\$16 00	\$16 00	\$17 00	\$3 84	\$4 09	\$4 58	.27	\$13 59	\$455 51	\$525 75
2. Blandford, . . . . .	440,775	154	2,862	18 00	15 50	15 00	4 94	3 93	4 29	.29	12 30	455 51	312 00
3. Brimfield, . . . . .	406,488	130	3,127	17 25	17 00	18 00	3 79	3 81	5 14	.29	16 09	455 51	407 00
4. Carlisle, . . . . .	346,828	65	5,336	16 67	13 00	16 00	2 87	2 86	3 40	.21	18 17	455 51	428 66
5. Chilmarnock, . . . . .	217,075	37	5,867	8 30	8 20	10 00	1 73	2 15	2 46	.25	14 45	455 51	295 00
6. Dunstable, . . . . .	291,745	57	5,118	13 50	15 00	11 00	4 17	3 58	4 37	.40	22 39	455 51	277 50

7. Gay Head, . . . . .	26,217	36	728	10 00	10 00	10 00	3 86	3 82	4 40	.44	3 21	455 51	72 00
8. Greenwich, . . . . .	249,965	62	4,032	14 00	15 00	14 00	3 91	3 91	3 88	.28	15 08	455 51	170 44
9. Halifax, . . . . .	268,148	63	4,256	12 70	14 20	16 20	3 34	3 70	3 73	.23	15 91	455 51	96 00
10. Hancock, . . . . .	297,771	68	4,379	9 40	10 50	10 90	2 48	2 51	3 27	.30	14 36	455 51	36 00
11. Holland, . . . . .	87,557	14	6,254	11 00	10 20	9 50	2 50	2 57	2 56	.27	16 07	455 51	72 00
12. Leverett, . . . . .	265,304	105	2,527	14 50	15 20	17 00	3 58	3 41	3 37	.20	8 54	455 51	946 00
13. Mashpee, . . . . .	182,020	56	3,250	12 40	12 30	15 60	3 94	3 23	4 55	.29	14 81	455 52	189 00
14. Monterey, . . . . .	225,935	72	3,138	18 00	16 67	16 67	3 26	3 67	4 23	.25	13 30	455 52	531 20
15. New Braintree, . . . . .	402,540	63	5,920	11 50	11 70	12 50	4 38	2 80	3 82	.31	22 62	455 52	455 00
16. New Marlborough, . . . . .	503,536	178	2,829	19 00	16 00	19 00	3 31	4 16	5 03	.26	14 24	455 52	260 00
17. Pelham, . . . . .	178,137	85	2,096	17 50	17 00	17 00	2 95	3 75	3 83	.23	8 04	455 52	323 00
18. Phillipston, . . . . .	260,575	55	4,901	18 30	17 20	18 00	4 09	3 77	3 39	.19	16 66	455 52	375 00
19. Plainfield, . . . . .	158,081	66	2,395	15 00	15 00	17 00	3 41	3 44	3 16	.19	7 58	455 52	565 50
20. Plympton, . . . . .	314,032	49	6,409	12 60	12 30	14 70	2 52	2 80	2 28	.16	14 67	455 52	132 00
21. Southampton, . . . . .	498,960	180	2,772	13 00	15 00	15 00	3 33	3 64	4 25	.28	11 79	455 52	489 63
22. Tyringham, . . . . .	216,719	50	4,334	13 00	13 00	12 50	3 92	2 90	2 96	.24	12 86	455 52	170 00
23. Washington, . . . . .	250,595	57	4,396	14 00	15 50	16 00	4 93	3 81	4 43	.28	19 51	455 52	622 30
24. Whately, . . . . .	406,788	80	5,035	15 25	15 00	18 00	3 88	3 84	2 90	.16	14 77	455 52	415 17
25. Worthington, . . . . .	305,126	121	2,322	17 50	17 00	15 50	3 34	3 81	2 94	.19	7 43	455 52	1,053 00

## Group 9.

1. Dana, . . . . .	\$289,805	104	\$2,884	\$14 50	\$14 40	\$14 80	\$3 30	\$2 86	\$1 87	.33	\$14 06	\$429 59	\$466 66
2. Egremont, . . . . .	433,454	88	4,925	10 20	12 50	10 00	2 29	2 30	2 73	.27	13 48	429 59	916 25

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS — *Continued.**Group 9* — Concluded.

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support of each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	189 .	1899.	1897.	1898.	1899.				
3. Paxton, . . . . .	\$292,441	51	\$5,734	\$14 00	\$16 00	\$16 50	\$2 78	\$3 28	\$4 40	.27	\$25 76	\$429 59	\$240 00
4. Rochester, . . . . .	485,609	132	3,679	15 00	16 00	16 00	3 09	3 19	4 20	.27	15 49	429 59	50 00

*Group 10.*

1. Ashfield, . . . . .	\$532,307	160	\$3,327	\$15 50	\$18 00	\$17 00	\$4 59	\$4 78	\$4 61	.27	\$15 36	\$394 38	\$78 00
2. Belchertown, . . . . .	860,435	394	2,184	14 70	16 00	14 80	5 18	5 31	5 34	.36	11 67	394 38	624 50
3. Carver, . . . . .	876,160	158	5,545	10 10	9 25	12 70	3 11	2 79	4 11	.32	22 83	394 38	59 00
4. Charlton, . . . . .	896,700	275	3,261	12 40	12 40	16 00	4 37	4 05	4 64	.23	15 16	394 38	-
5. Chatham, . . . . .	855,895	261	3,279	17 00	17 00	18 00	5 21	5 21	5 67	.32	18 60	394 38	452 67
6. Cheshire, . . . . .	675,351	182	3,711	15 00	15 50	15 50	4 13	4 28	4 75	.31	17 64	394 38	375 00
7. Colrain, . . . . .	582,833	269	2,167	16 00	22 00	19 00	6 34	6 46	7 01	.37	15 19	394 38	626 50
8. Dighton, . . . . .	791,610	236	3,354	15 00	15 80	16 30	5 48	4 96	6 00	.37	20 13	394 38	-
9. Dover, . . . . .	844,060	91	9,275	8 40	9 20	6 70	2 55	2 92	3 11	.46	28 79	394 38	269 00

10. Groveland,	.	.	.	.	.	978,701	412	2,375	20 80	17 50	18 70	5 60	5 66	7 07	.38	16 81	394 38	500 00
11. Hanson, .	.	.	.	.	.	682,598	190	3,593	15 50	16 30	17 00	4 64	4 85	5 21	.31	18 73	394 38	466 66
12. Harvard, .	.	.	.	.	.	931,038	123	7,274	9 60	9 90	10 90	3 16	3 33	3 99	.37	29 07	394 38	401 79
13. Hubbardston, .	.	.	.	.	.	627,415	195	3,218	16 50	16 00	16 50	4 35	5 21	5 74	.35	18 49	394 38	342 16
14. Huntington, .	.	.	.	.	.	510,041	281	1,815	21 00	19 00	19 00	5 44	5 38	6 29	.33	11 42	394 38	120 00
15. Mendon, .	.	.	.	.	.	549,706	140	3,927	12 50	13 00	12 00	4 34	4 59	5 61	.47	22 04	394 38	416 66
16. Middleton, .	.	.	.	.	.	550,333	95	5,793	19 50	14 50	15 50	3 39	4 78	4 79	.31	27 80	394 38	-
17. Norfolk, .	.	.	.	.	.	533,722	135	3,953	15 20	14 40	14 50	4 57	4 51	6 03	.42	23 88	394 38	-
18. Norton, .	.	.	.	.	.	841,205	212	3,968	13 20	15 20	14 80	4 31	5 30	5 59	.38	22 20	394 38	545 00
19. Norwell, .	.	.	.	.	.	853,814	239	3,572	14 00	13 50	15 00	4 51	4 81	5 99	.40	21 41	394 38	562 67
20. Petersham, .	.	.	.	.	.	610,217	102	5,983	12 00	12 60	13 00	4 34	3 58	4 25	.33	25 48	394 38	257 35
21. Princeton, .	.	.	.	.	.	847,419	140	6,053	11 00	12 00	13 00	3 53	3 79	4 51	.35	27 35	394 38	250 00
22. Rehoboth, .	.	.	.	.	.	744,480	251	2,966	15 30	16 80	13 00	4 90	5 28	5 15	.40	15 29	394 38	-
23. Sheffield, .	.	.	.	.	.	856,432	271	3,160	14 50	17 40	15 40	4 48	4 70	5 33	.35	16 85	394 38	375 00
24. Sherborn, .	.	.	.	.	.	793,510	142	5,888	12 80	12 60	15 00	3 91	4 05	3 98	.27	22 27	394 38	286 00
25. Shirley, .	.	.	.	.	.	755,613	201	3,809	13 80	14 50	14 30	3 77	5 04	3 81	.27	14 53	394 38	357 14
26. Sturbridge, .	.	.	.	.	.	925,366	278	3,329	16 50	16 00	17 00	5 47	4 83	6 63	.39	22 08	394 38	562 50
27. Swansea, .	.	.	.	.	.	912,995	240	3,804	15 60	15 40	15 60	4 70	5 19	4 75	.30	18 09	394 38	416 67
28. Westminster, .	.	.	.	.	.	643,671	213	3,022	14 50	15 00	17 00	4 90	4 56	5 93	.35	17 95	394 38	516 00

## Group II.

1. Deerfield,	.	.	.	.	.	\$1,305,990	262	\$4,985	\$11 00	\$11 50	\$12 50	\$3 88	\$4 44	\$4 18	.33	\$20 87	\$559 18	\$600 00
2. Dennis, .	.	.	.	.	.	1,030,013	423	2,435	13 80	15 00	17 60	5 99	5 97	6 81	.39	16 60	359 18	848 14

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS—Continued.  
Group II—Concluded.

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOU- SAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for sup- port for each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
3. Holden, . . . . .	\$1,191,388	456	\$2,613	\$16 60	\$17 30	\$15 90	\$6 62	\$6 12	\$7 34	.46	\$19 18	\$359 18	-
4. Kingston, . . . . .	1,392,130	329	4,201	11 00	10 00	12 00	4 14	3 87	4 68	.39	19 68	350 18	-
5. Ludlow, . . . . .	1,360,959	412	3,303	11 40	12 10	12 00	5 30	5 40	5 68	.47	18 79	359 18	\$972 90
6. Merrimac, . . . . .	1,234,291	404	3,055	17 00	18 00	18 00	5 61	7 02	7 40	.41	22 63	359 18	625 00
7. Monson, . . . . .	1,771,718	588	3,013	17 60	16 50	16 00	6 01	6 04	6 69	.42	20 18	359 18	1,111 50
8. Southborough, . . . . .	1,467,881	285	5,150	10 20	11 40	12 50	3 91	4 58	4 86	.39	25 05	359 18	340 90
9. Sudbury, . . . . .	1,154,534	178	6,486	13 00	13 50	13 30	5 35	5 25	5 28	.40	34 80	359 18	375 00
10. Sutton, . . . . .	1,204,969	410	2,939	13 20	14 00	13 25	4 57	4 78	5 58	.42	16 42	359 18	-
11. Westford, . . . . .	1,276,216	402	3,175	13 50	15 00	15 30	5 38	5 60	6 33	.41	20 11	359 18	625 00
12. Wrentham, . . . . .	1,493,056	445	3,355	16 00	15 30	16 60	6 06	6 02	7 97	.48	26 75	359 18	937 50
Group I2.													
1. Acushnet, . . . . .	\$641,890	154	\$4,163	\$14 00	\$14 00	\$17 00	\$3 21	\$3 19	\$3 50	.21	\$14 60	\$355 51	\$250 00
2. Avon, . . . . .	821,255	289	2,842	19 60	18 40	19 60	5 80	4 86	5 07	.26	14 41	365 51	-



3. Boxford, . .	988,435	77	8,941	7 60	8 90	7 60	1 82	2 20	3 11	.41	27 87	355 51	-
4. Chester, . .	579,651	234	2,477	20 00	19 00	18 00	3 72	4 31	5 26	.29	13 05	355 51	578 90
5. Conway, . .	658,382	287	2,294	17 00	19 00	19 00	4 74	4 93	5 35	.28	12 29	355 51	355 36
6. Essex, . .	971,799	303	3,207	14 80	15 60	14 80	3 48	3 57	4 30	.29	13 81	355 51	-
7. Freetown, . .	821,322	208	3,949	9 00	11 00	12 25	2 72	2 71	3 27	.27	12 92	355 51	416 66
8. Hadley, . .	974,484	223	4,370	16 50	16 50	16 00	3 64	3 80	3 46	.22	15 14	355 51	54 50
9. Lunenburg, . .	791,573	198	3,998	13 80	14 50	14 60	3 42	3 51	4 71	.32	18 83	355 51	416 67
10. Lynnfield, . .	675,371	98	6,892	12 50	14 00	12 50	2 78	3 01	4 02	.32	27 74	355 51	-
11. Mills, . .	723,390	213	3,396	13 50	16 60	15 50	4 04	4 31	4 62	.30	15 72	355 52	28 50
12. Northfield, . .	915,931	217	4,221	12 50	13 50	12 00	4 17	3 58	4 64	.39	19 59	355 52	507 10
13. Rowley, . .	667,894	170	3,929	13 75	15 00	12 00	3 44	3 34	3 53	.29	13 87	355 52	250 00
14. Rutland, . .	588,626	199	2,958	15 00	16 50	19 50	4 15	4 06	5 41	.28	16 02	355 52	21 50
15. Seekonk, . .	948,715	188	5,046	11 00	11 50	11 50	2 55	2 88	3 03	.26	15 31	355 52	416 67
16. Shelburne, . .	890,761	221	4,031	17 00	22 00	17 00	6 03	5 46	5 70	.34	23 01	355 52	375 00
17. Stow, . .	710,188	122	5,821	8 00	10 00	9 00	2 17	2 46	2 87	.32	16 76	355 52	-
18. Tiabury, . .	973,289	134	7,263	11 60	12 60	12 00	2 76	2 90	3 36	.28	24 45	355 52	250 00
19. Topsfield, . .	814,895	146	5,581	14 00	14 00	12 50	3 04	3 16	3 76	.30	21 01	355 52	-
20. Wenham, . .	951,600	111	8,573	9 60	8 80	9 60	1 98	2 23	2 58	.27	22 18	355 52	-
21. West Brookfield, . .	761,389	201	3,788	16 00	20 20	14 50	4 40	4 36	5 75	.40	21 82	355 52	435 00
22. West Newbury, . .	868,923	215	4,042	14 00	15 00	15 00	4 24	3 92	5 36	.36	21 69	355 52	500 00

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS — *Continued.**Group 13.*

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOU- SAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for sup- port for each pupil in the 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
1. Cummington, . . . . .	\$287,195	126	\$2,279	\$19 30	\$18 00	\$18 50	\$2 48	\$2 10	\$4 69	.25	\$10 69	\$350 00	\$907 87
2. Goshen, . . . . .	139,513	50	2,790	18 00	21 00	18 50	2 92	2 92	2 60	.14	7 27	350 00	280 50
3. New Ashford, . . . . .	57,165	16	3,573	17 30	19 40	19 00	2 52	3 10	1 92	.10	6 88	350 00	-
4. Sandisfield, . . . . .	329,614	101	3,264	14 60	21 70	18 80	3 56	3 44	2 77	.15	9 06	350 00	524 50
5. Southwick, . . . . .	488,345	171	2,856	16 00	18 00	17 00	3 67	3 00	4 36	.26	12 48	350 00	665 00
6. Warwick, . . . . .	342,405	121	2,830	13 50	22 00	20 00	3 29	3 28	4 02	.20	11 40	350 00	864 98
7. Wendell, . . . . .	236,598	67	3,531	20 00	20 00	20 00	3 58	3 26	4 15	.21	14 67	350 00	422 56

*Group 14.*

1. Pembroke, . . . . .	\$631,275	167	\$3,780	\$17 20	\$18 50	\$18 00	\$3 57	\$3 85	\$4 07	.23	\$15 41	\$329 59	-
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*Group 15.*

1. Bridgewater, . . . . .	\$2,501,849	720	\$3,475	\$16 50	\$16 30	\$17 50	\$6 19	\$5 84	\$5 89	.34	\$20 47	\$500 18	\$682 00
2. Dracut, . . . . .	1,951,026	400	4,878	10 50	10 25	15 00	4 18	4 17	5 26	.35	25 68	309 18	500 00

*Group 16.*

3. Grafton, . . . . .	2,410,397	790	3,051	17 00	17 00	18 00	6 00	6 04	7 29	.41	22 25	309 18	937 50
4. Palmer, . . . . .	2,803,853	1,050	2,670	18 90	19 10	18 80	6 83	6 94	7 64	.41	20 40	306 18	-
5. Pepperell, . . . . .	2,210,247	707	3,126	12 00	13 00	14 00	4 75	5 19	6 11	.44	19 12	309 18	-

1. Alford, . . . . .	\$168,093	29	\$5,796	\$8 00	\$10 00	\$10 00	\$1 74	\$1 78	\$1 42	.14	\$8 27	\$300 00	\$316 00
2. Gosnold, . . . . .	224,926	20	11,246	4 54	5 18	5 21	44	44	76	.15	8 56	300 00	-
3. Mt. Washington, . . . . .	90,843	24	3,785	14 00	15 00	12 00	1 41	1 92	4 17	.35	15 82	300 00	136 00

*Group 17.*

1. Acton, . . . . .	\$1,580,870	279	\$5,666	\$11 50	\$11 00	\$11 00	\$3 35	\$3 86	\$4 29	.39	\$24 33	\$294 38	\$375 00
2. Agawam, . . . . .	1,347,700	383	3,519	17 00	13 80	15 20	4 11	4 73	5 13	.34	18 07	294 38	574 40
3. Ashburnham, . . . . .	973,010	354	2,749	16 00	17 50	17 50	4 70	4 74	5 94	.34	16 33	294 38	-
4. Ashland, . . . . .	1,139,978	317	3,596	17 10	17 90	16 00	5 06	6 07	6 13	.38	22 08	294 38	563 64
5. Ayer, . . . . .	1,511,302	438	3,450	16 40	15 40	15 40	4 30	4 13	4 84	.31	16 71	294 38	500 00
6. Barre, . . . . .	1,472,430	276	5,335	14 00	13 00	13 00	4 64	4 45	4 74	.36	25 34	294 38	671 43
7. Brookfield, . . . . .	1,369,670	498	2,750	18 40	18 60	18 40	6 18	5 69	6 98	.38	19 21	294 38	625 00
8. Douglas, . . . . .	1,052,691	332	3,171	14 20	17 50	15 50	4 78	4 90	5 27	.34	16 72	294 38	-
9. Dudley, . . . . .	1,041,116	353	2,949	15 30	19 40	16 00	5 58	5 48	6 56	.41	19 37	294 38	393 00
10. East Bridgewater, . . . . .	1,428,044	494	2,891	16 50	16 80	17 50	5 16	5 38	6 45	.37	18 67	294 38	596 33
11. Georgetown, . . . . .	1,012,395	342	2,960	16 00	16 60	16 00	5 09	5 43	6 08	.38	18 01	294 38	598 50
12. Hanover, . . . . .	1,209,197	302	4,004	15 00	15 50	20 00	4 72	5 06	5 27	.26	21 11	294 38	416 67

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS—Continued.

## Group 17—Concluded.

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE,—DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS,—DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
13. Hardwick, . . . . .	\$1,547,885	357	\$4,334	\$13 50	\$14 00	\$14 00	\$3 94	\$4 31	\$4 48	.32	\$19 44	\$294 38	\$514 70
14. Harwich, . . . . .	1,108,180	339	3,269	14 90	14 50	14 20	4 79	4 72	5 33	.38	17 44	294 38	650 00
15. Holbrook, . . . . .	1,210,522	425	2,848	23 25	20 00	20 00	6 50	6 02	6 31	.32	18 00	294 38	-
16. Holliston, . . . . .	1,458,129	439	3,321	21 30	19 90	20 00	5 04	6 15	6 65	.33	22 10	294 38	534 00
17. Hopkinton, . . . . .	1,786,890	465	3,843	18 50	15 75	17 75	4 94	5 21	5 41	.31	21 03	294 38	750 00
18. Lee, . . . . .	1,755,483	514	3,376	19 00	19 50	19 50	5 14	5 26	6 08	.31	20 54	294 38	53 50
19. Medfield, . . . . .	1,374,172	242	5,678	12 00	11 50	12 00	3 04	3 32	3 82	.32	21 71	294 38	500 00
20. Newbury, . . . . .	1,074,126	212	5,087	10 00	10 50	10 50	3 36	3 39	3 67	.35	18 61	294 38	92 00
21. North Brookfield, . . . . .	1,840,895	628	2,931	22 50	22 50	23 00	7 45	6 44	6 64	.29	19 47	294 38	625 00
22. Northborough, . . . . .	1,256,959	375	3,352	13 20	17 00	15 80	4 80	5 16	5 97	.38	20 01	294 38	340 00
23. Oxford, . . . . .	1,302,334	403	3,232	17 30	17 20	14 30	4 65	4 86	5 65	.40	18 29	294 38	312 50
24. Provincetown, . . . . .	1,859,223	746	2,492	17 00	18 00	18 40	5 07	5 38	6 37	.35	15 89	294 38	694 44
25. Randolph, . . . . .	1,890,850	648	2,918	21 00	19 80	21 60	5 95	5 78	5 50	.25	16 06	294 38	-
26. Shrewsbury, . . . . .	1,137,855	245	4,644	13 70	15 00	13 50	4 55	4 12	4 60	.34	21 40	294 38	378 80

27. Somerset,	.	.	.	.	3,090	15 50	14 00	15 00	4 70	4 83	5 97	.40	18 47	294 38	17 50
28. Tewksbury,	.	.	.	.	4,097	13 00	13 00	16 20	4 36	3 89	5 04	.31	20 66	294 38	534 16
29. Townsend,	.	.	.	.	4,133	15 50	15 00	17 00	4 51	4 35	4 77	.28	19 99	294 38	833 00
30. Upton,	.	.	.	.	3,431	16 00	17 50	17 00	5 68	6 00	6 02	.35	20 68	294 38	456 00
31. Warren,	.	.	.	.	2,444	14 50	18 20	20 30	4 75	5 57	8 35	.41	20 41	294 38	1,000 00
32. Wayland,	.	.	.	.	3,686	16 00	17 60	20 00	5 41	5 69	6 46	.32	23 85	294 38	625 00
33. West Bridgewater,	.	.	.	.	4,756	13 00	11 00	11 50	3 84	3 79	4 18	.36	19 83	294 38	499 67
34. Westwood,	.	.	.	.	7,109	15 00	15 80	18 00	5 34	4 85	4 82	.27	34 33	294 38	-
35. Wilmington,	.	.	.	.	4,075	13 25	14 00	13 60	4 50	4 55	5 37	.39	21 89	294 38	-

## Group 18.

1. Bedford,	.	.	.	.	\$1,085,546	170	\$16 00	\$15 50	\$16 50	\$3 97	\$3 73	\$4 10	.25	\$25 23	\$255 51	-
2. Billerica,	.	.	.	.	1,876,979	428	4,385	10 30	16 80	3 98	4 24	4 68	.23	20 56	255 51	\$625 00
3. Bourne,	.	.	.	.	2,064,200	304	6,790	10 80	13 20	3 55	3 16	3 53	.28	24 01	255 51	596 50
4. Hamilton,	.	.	.	.	1,943,585	203	9,574	6 00	7 30	1 88	1 80	2 32	.30	22 25	255 51	-
5. Hatfield,	.	.	.	.	1,016,904	199	5,110	12 30	13 00	2 76	3 11	3 52	.23	17 99	255 51	-
6. Lincoln,	.	.	.	.	2,452,833	136	18,036	12 50	11 00	2 49	2 46	2 03	.25	36 63	255 51	312 50
7. Mansfield,	.	.	.	.	1,928,538	673	2,866	18 00	21 00	5 36	5 41	6 18	.33	17 72	255 51	554 00
8. Mattapoisett,	.	.	.	.	1,516,894	137	11,072	7 00	8 00	1 87	1 92	2 47	.31	27 39	255 52	250 00
9. Medway,	.	.	.	.	1,377,100	496	2,776	16 50	20 50	5 45	5 20	6 09	.29	16 93	255 52	536 00
10. Templeton,	.	.	.	.	1,251,257	573	2,134	17 60	20 60	5 16	5 31	7 01	.39	15 31	255 52	723 50
11. Yarmouth,	.	.	.	.	1,733,934	199	8,713	11 00	11 50	3 14	2 68	2 58	.20	22 55	255 52	401 86

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS — *Continued.**Group 19.*

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOU- SAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for sup- port for each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
1. Abington, . . . . .	\$2,316,341	702	\$3,300	\$21 60	\$21 70	\$21 70	\$6 43	\$7 03	\$7 54	.35	\$24 90	\$244 38	\$625 00
2. Blackstone, . . . . .	2,689,910	895	3,005	17 80	16 80	19 70	4 97	5 07	5 05	.26	15 18	244 38	-
3. Chelmsford, . . . . .	2,446,180	708	3,455	11 00	11 00	14 00	3 57	3 81	4 86	.35	16 79	244 38	750 00
4. Dalton, . . . . .	2,580,457	543	4,752	15 50	15 00	14 50	4 73	4 82	5 27	.36	25 05	244 38	875 00
5. Easthampton, . . . . .	2,919,567	830	3,518	16 50	15 50	16 50	5 02	4 92	5 33	.32	18 77	244 38	1,027 00
6. Foxborough, . . . . .	2,008,500	545	3,685	16 30	15 40	14 50	5 27	4 75	5 66	.39	20 88	244 38	883 50
7. Hudson, . . . . .	2,939,537	949	3,098	19 75	18 60	21 25	5 09	5 30	6 43	.30	19 93	244 38	-
8. Leicester, . . . . .	2,634,565	574	4,590	17 20	16 40	14 10	4 94	4 40	4 89	.35	22 47	244 38	-
9. Millbury, . . . . .	2,290,325	715	3,203	19 50	19 00	19 00	4 94	5 05	5 68	.30	18 22	244 38	562 50
10. Orange, . . . . .	2,874,365	1,069	2,689	20 00	20 00	19 00	5 05	5 31	6 81	.36	18 33	244 38	1,019 31
11. South Hadley, . . . . .	2,103,142	810	2,596	18 50	19 00	19 00	5 65	5 66	7 80	.41	20 28	244 38	1,051 50
12. Westborough, . . . . .	2,828,631	696	4,064	16 40	16 90	17 00	4 35	4 54	5 53	.33	22 51	244 38	49 92

*Group 20.*

1. Duxbury,	.	.	.	\$1,619,828	239	\$6,778	\$15 60	\$14 00	\$14 60	\$2 74	\$2 73	\$3 25	.22	\$22 03	\$229 59	\$416 07
2. Marion,	.	.	.	1,052,270	120	8,769	13 00	12 00	16 00	2 20	2 10	2 66	.17	23 39	229 59	-
3. Marshfield,	.	.	.	1,281,110	259	4,946	17 50	18 70	18 20	3 44	3 61	5 23	.29	25 90	229 59	416 07
4. Sharon,	.	.	.	1,855,102	259	7,086	12 70	12 00	16 00	2 17	2 29	3 19	.20	22 62	229 59	250 00
5. Westport,	.	.	.	1,555,825	394	3,949	16 80	18 80	16 80	4 49	3 89	4 59	.27	18 14	229 59	625 00

*Group 21.*

1. Dartmouth,	.	.	.	\$2,714,275	473	\$5,738	\$14 40	\$12 00	\$12 80	\$2 84	\$3 15	\$3 82	.30	\$21 98	\$205 51	\$625 00
2. Fairhaven,	.	.	.	2,279,040	563	4,048	15 20	17 00	17 00	4 27	4 14	4 70	.28	19 03	205 51	750 00
3. Franklin,	.	.	.	3,223,145*	597	5,399	14 80	16 00	15 00	4 07	4 15	4 28	.29	23 14	205 51	77 00
4. Maynard,	.	.	.	2,136,423	552	3,870	13 00	14 60	14 00	3 73	3 59	4 24	.30	16 42	205 52	-
5. Rockland,	.	.	.	3,053,281*	1,062	2,875	22 20	22 30	22 30	5 37	5 41	6 25	.28	17 99	205 52	-
6. Scituate,	.	.	.	2,554,265	347	7,361	11 50	13 00	12 50	2 78	2 74	3 16	.25	23 31	205 52	452 66
7. Uxbridge,	.	.	.	2,240,315	560	4,001	15 40	17 40	16 00	4 26	4 25	4 93	.31	19 73	205 52	-
8. Walpole,	.	.	.	2,542,062	570	4,460	18 50	17 40	18 50	4 58	4 51	5 53	.30	24 69	205 52	790 50
9. Wareham,	.	.	.	2,348,013	544	4,316	15 50	17 00	16 50	3 93	3 87	3 79	.23	16 40	205 52	-
10. Williamstown,	.	.	.	2,913,776	804	3,624	16 25	18 60	16 60	4 31	4 82	6 01	.36	21 79	205 52	59 00

\* Under \$3,000,000 by valuation of May 1, 1893, which determined their shares in the income of the school fund for this table.

TABLE OF DATA RELATIVE TO THE SCHOOL-FUND TOWNS—*Concluded.**Group 22.*

TOWNS.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOU- SAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for sup- port for each pupil in the average membership for 1899-1900.	Income from the school fund paid Jan. 25, 1900.	Other aid from the State for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.				
1. Burlington, . . . .	\$500,408	54	\$9,267	\$16 00	\$32 00	\$18 70	\$3 23	\$3 12	\$3 13	.11	\$29 01	\$200 00	-
2. Edgartown, . . . .	720,682	138	5,222	16 00	16 10	15 40	2 56	2 54	4 37	.28	22 83	200 00	\$312 50

*Group 23.*

1. Rockport, . . . .	\$2,743,018	708	\$3,874	\$13 00	\$18 50	\$17 60	\$3 87	\$3 53	\$4 20	.24	\$16 27	\$179 59	-
2. Stoughton, . . . .	2,952,375	705	4,188	18 00	20 00	20 00	4 17	4 19	4 94	.25	20 72	179 59	\$636 00
3. Winchendon, . . . .	2,489,935	792	3,144	21 00	20 00	19 00	3 71	3 83	4 88	.26	15 36	179 59	885 83

*Group 24.*

1. Cottage City, . . . .	\$1,675,300	161	\$10,406	\$15 80	\$16 30	\$17 40	\$2 15	\$2 16	\$2 51	.14	\$26 14	\$100 00	\$312 50
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*Table of Data relative to Towns and Cities not in Receipt of Income from the School Fund.*—To complete the view for the State, a table is here given to show for the non-school-fund towns such facts as are given in the table of the school-fund towns. For convenience, the non-school-fund towns are put into three groups, as indicated. Previous to 1874, the income went to all the towns and cities of the State; from 1874 to 1884, to all towns under a valuation of \$10,000,000; and since 1884, to all towns whose valuation is under \$3,000,000. In this table the amount raised by taxation and expended upon each child in the average membership for school support is very close to the total expenditure for such purpose, much closer than in the table of the school-fund towns, for the obvious reason that the towns of the former table have to rely almost wholly on local taxation for such expenditure, while those of the latter receive considerable sums from the State for such expenditure. It needs to be emphasized that the main purpose of the tabular views is variously to display, not the total expenditure for school support, but the true local burden for such support.

TABLE OF DATA RELATIVE TO THE NON-SCHOOL-FUND TOWNS.

Group I. — Towns whose valuation exceeds \$3,000,000 but does not exceed \$10,000,000.

TOWNS AND CITIES.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.		
1. Adams, . . . . .	\$4,636,277	1,855	\$2,499	\$16 00	\$19 50	\$19 50	\$6 16	\$6 08	\$7 36	.38	\$18 42
2. Amesbury, . . . . .	5,152,431	1,040	4,954	14 60	14 00	17 50	3 65	3 77	4 20	.24	21 25
3. Amherst, . . . . .	3,168,982	694	4,566	15 50	16 00	17 00	3 95	4 04	5 03	.30	22 96
4. Andover, . . . . .	5,110,982	990	5,163	15 00	15 00	16 00	3 88	3 96	4 51	.28	23 31
5. Arlington, . . . . .	8,843,061	1,347	6,565	18 30	17 90	17 70	3 62	3 61	4 19	.24	27 57
6. Athol, . . . . .	4,211,935	938	4,490	17 20	19 20	18 90	4 08	4 29	4 93	.26	22 17
7. Attleborough, . . . . .	6,390,968	1,646	3,883	18 50	18 50	17 00	4 73	4 40	5 58	.33	21 69
8. Barnstable, . . . . .	3,959,170	688	5,755	12 00	11 00	12 00	4 11	4 24	4 89	.41	28 18
9. Belmont, . . . . .	5,068,780	551	9,199	16 25	15 00	16 40	3 09	2 64	3 77	.23	34 73
10. Braintree, . . . . .	4,496,450	1,080	4,163	18 80	18 20	20 40	4 02	4 03	5 25	.26	21 87
11. Canton, . . . . .	3,996,370	571	6,999	16 80	16 00	17 50	3 78	3 83	4 24	.24	29 69
12. Chicopee, . . . . .	9,250,830	2,154	4,294	17 20	18 10	18 00	3 67	3 79	5 18	.29	21 96
13. Clinton, . . . . .	7,469,363	1,949	3,832	17 80	18 20	18 00	4 12	4 23	5 22	.29	20 04

14. Cohasset,	4,888,044	401	12,190	9 00	9 85	11 10	2 49	2 44	2 67	.24	32 61
15. Concord,	4,139,252	848	4,881	14 00	13 33	12 40	4 91	4 70	5 73	.46	27 98
16. Danvers,	5,109,540	1,339	3,816	18 00	19 20	15 80	5 20	5 06	5 21	.33	19 06
17. Dedham,	8,428,078	1,275	6,610	14 00	16 80	16 80	3 83	3 77	4 59	.27	30 37
18. Easton, .	4,683,730	928	5,047	9 30	9 00	9 00	3 81	4 59	4 15	.46	20 99
19. Falmouth,	6,995,507	399	17,533	8 30	8 15	6 50	2 01	1 95	2 26	.35	39 75
20. Framingham,	9,119,878	1,969	4,627	16 00	15 00	17 00	4 78	4 79	5 21	.31	24 16
21. Franklin,	3,223,145*	597	5,399	14 80	16 00	15 00	4 07	4 15	4 28	.29	23 14
22. Gardner,	5,263,071	1,650	3,190	20 00	22 00	22 50	4 83	5 62	6 39	.28	20 41
23. Great Barrington,	3,522,679	891	3,954	10 00	12 50	10 00	3 92	4 08	4 76	.48	18 85
24. Greenfield,	5,910,725	1,358	4,353	15 00	18 00	14 00	4 13	4 48	5 55	.40	24 19
25. Groton, .	3,144,283	397	7,920	7 00	7 00	7 00	2 71	2 43	3 19	.46	25 32
26. Hingham,	4,070,240	772	5,272	19 10	14 50	16 00	4 20	4 33	5 13	.32	27 09
27. Hopedale,	3,573,618	249	14,352	10 00	10 00	10 00	1 43	1 62	2 25	.23	32 34
28. Hull,	4,048,454	140	28,918	17 90	17 20	16 25	1 29	1 44	1 36	.08	39 37
29. Ipswich,	3,091,932	672	4,601	15 00	14 00	14 00	3 97	3 95	4 33	.31	19 97
30. Lancaster,	3,103,280	376	8,253	10 30	12 10	12 00	2 76	2 63	3 19	.26	26 33
31. Lenox, .	3,765,899	566	6,654	14 50	15 40	14 60	2 99	2 87	3 45	.24	22 99
32. Leominster,	6,958,115	1,869	3,723	21 50	22 50	21 00	4 41	4 84	5 76	.27	21 48
33. Lexington,	5,032,005	616	8,169	15 00	17 50	16 00	3 29	3 42	3 76	.24	30 75
34. Manchester,	8,359,578	351	23,816	8 20	8 00	8 00	1 06	1 14	1 29	.16	30 94

\* See note, page 287.

TABLE OF DATA RELATIVE TO THE NON-SCHOOL-FUND TOWNS—Continued.

Group I.—Towns and cities whose valuation exceeds \$3,000,000 but does not exceed \$10,000,000—Concluded.

TOWNS AND CITIES.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, —DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, —DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.		
35. Marblehead, . . . . .	\$5,966,441	1,214	\$4,915	\$16 80	\$19 20	\$19 20	\$3 39	\$3 32	\$3 62	.19	\$17 80
36. Marlborough, . . . . .	9,284,377	2,434	3,814	18 10	19 00	19 10	4 55	5 07	5 82	.30	22 22
37. Methuen, . . . . .	4,295,193	1,114	3,856	16 80	16 80	18 00	4 12	4 28	5 51	.31	21 25
38. Middleborough, . . . . .	3,985,630	1,045	3,814	18 75	19 00	19 00	4 63	4 66	5 46	.34	20 85
39. Milford, . . . . .	5,579,123	1,354	4,182	17 00	17 50	17 80	4 01	4 02	4 94	.28	20 66
40. Montague, . . . . .	3,689,650	1,029	3,585	17 00	20 20	19 00	5 67	5 18	6 34	.33	22 75
41. Nahant, . . . . .	4,720,361	110	42,921	7 50	8 00	8 00	90	97	1 18	.15	50 77
42. Nantucket, . . . . .	3,344,038	351	9,527	10 00	12 60	12 60	1 58	1 79	2 08	.17	19 90
43. Natick, . . . . .	5,903,050	1,757	3,360	19 60	22 40	18 40	4 58	5 05	5 84	.32	19 63
44. Needham, . . . . .	3,435,790	678	5,068	15 80	15 80	17 00	3 66	3 88	4 91	.29	24 93
45. North Andover, . . . . .	3,373,360	703	4,799	15 00	15 00	14 50	4 54	4 54	4 61	.32	22 13
46. North Attleborough, . . . . .	3,879,581	1,228	3,159	23 00	21 40	22 50	5 80	5 27	6 64	.30	20 98
47. Northbridge, . . . . .	3,339,476	1,112	3,003	13 40	12 40	11 70	4 78	6 15	6 70	.57	20 13

48. Norwood, . . . . .	4,202,327	1,060	3,964	18 40	19 30	19 50	4 13	4 42	4 83	.25	19 16
49. Peabody, . . . . .	8,578,349	1,679	5,109	16 00	17 40	18 40	3 97	3 97	4 10	.22	20 99
50. Plymouth, . . . . .	7,075,030	1,432	4,873	16 40	17 20	16 40	3 97	3 99	4 66	.28	22 74
51. Reading, . . . . .	4,423,735	882	5,192	18 00	18 00	17 50	3 78	4 15	4 72	.27	24 56
52. Rockland, . . . . .	3,053,281*	1,062	2,875	22 20	22 30	22 39	5 97	5 41	6 25	.28	17 09
53. Saugus, . . . . .	3,534,172	1,004	3,520	18 00	20 50	20 00	4 28	4 37	5 62	.28	19 90
54. Southbridge, . . . . .	3,842,490	946	4,062	15 40	19 00	18 60	4 15	4 56	5 96	.32	24 24
55. Spencer, . . . . .	3,471,170	1,059	3,278	20 00	19 00	22 00	6 40	6 53	8 85	.40	29 01
56. Stockbridge, . . . . .	3,225,612	382	8,444	12 40	11 40	11 10	2 60	2 65	3 15	.28	26 61
57. Stoneham, . . . . .	5,188,715	962	5,394	17 00	19 80	17 50	3 62	3 59	4 07	.23	21 96
58. Swampscott, . . . . .	5,399,220	629	8,584	12 00	14 00	11 50	2 34	2 37	3 19	.23	27 41
59. Ware, . . . . .	4,079,385	1,015	4,019	16 80	19 30	19 00	5 22	5 39	6 13	.32	24 64
60. Wakefield, . . . . .	7,688,818	1,752	4,389	17 40	17 00	17 20	3 95	3 83	4 77	.28	20 96
61. Webster, . . . . .	3,367,460	654	5,149	12 50	10 00	15 00	3 47	3 91	5 25	.35	27 11
62. Wellesley, . . . . .	8,732,625	612	14,269	11 00	11 00	11 00	2 70	2 35	2 99	.27	42 67
63. Westfield, . . . . .	8,105,653	1,775	4,567	16 00	18 00	17 80	4 35	4 86	5 61	.32	25 63
64. Weston, . . . . .	3,903,073	217	17,987	8 30	9 50	7 70	3 24	3 20	2 91	.38	52 37
65. West Springfield, . . . . .	4,890,393	1,331	3,541	15 50	14 80	14 50	5 10	5 04	5 50	.38	19 49
66. Weymouth, . . . . .	6,565,322	2,057	3,192	20 30	18 70	20 20	5 87	5 84	6 75	.33	21 55
67. Whitman, . . . . .	3,656,396	1,078	3,392	18 00	19 40	19 20	4 96	5 11	5 77	.30	19 58
68. Winchester, . . . . .	8,219,960	1,294	6,552	15 40	16 30	16 30	3 32	3 21	4 04	.25	25 68
69. Winthrop, . . . . .	6,676,455	933	6,933	15 30	15 60	15 70	2 82	2 92	3 63	.23	25 17

\* See note, page 287.

TABLE OF DATA RELATIVE TO THE NON-SCHOOL-FUND TOWNS — *Continued.*  
*Group II. — Towns and cities whose valuation exceeds \$10,000,000 but does not exceed \$50,000,000.*

TOWNS AND CITIES.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE, — DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS, — DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.		
1. Beverly,	\$16,199,850	2,168	\$7,472	\$16 00	\$15 00	\$16 00	\$2 24	\$2 25	\$3 03	.19	\$22 71
2. Brockton,	27,327,746	6,069	4,503	20 70	20 20	21 60	4 33	5 03	5 08	.23	22 91
3. Chelsea.	23,405,294	5,057	4,628	17 60	17 40	17 40	3 82	4 02	4 66	.27	21 57
4. Everett.	17,836,200	4,311	4,137	18 70	17 00	16 50	4 70	4 95	5 51	.33	22 81
5. Fitchburg,	23,110,251	3,761	6,145	19 20	18 60	18 00	4 63	4 28	4 79	.27	29 44
6. Gloucester,	15,826,307	4,169	3,796	18 00	17 60	17 40	3 94	4 17	4 64	.27	17 63
7. Haverhill,	25,604,234	4,660	5,494	16 80	17 80	17 80	4 33	4 35	4 85	.27	26 70
8. Holyoke,	37,660,950	5,407	6,965	15 80	14 40	16 00	4 18	4 06	4 88	.31	34 00
9. Hyde Park,	10,283,885	1,577	6,521	15 50	17 00	20 00	3 97	3 89	4 44	.22	29 01
10. Lawrence,	38,614,722	6,836	5,649	15 60	15 60	15 60	3 87	3 97	4 29	.28	24 26
11. Malden,.	26,762,400	5,247	5,101	16 30	16 50	16 40	4 79	4 95	5 95	.36	30 35
12. Medford,	19,408,000	3,078	6,305	17 00	17 80	17 60	4 07	4 11	4 76	.27	30 05
13. Melrose,	12,665,435	2,506	5,054	15 60	16 70	17 00	3 81	4 38	5 50	.32	27 81
14. Milton,.	20,683,586	1,162	17,800	9 00	9 00	11 00	2 13	2 38	2 64	.24	47 41

15. Newburyport,	.	.	.	.	10,015,417	1,557	6,433	15 40	16 10	15 50	2 69	2 93	3 13	.20	20 17
16. North Adams,	.	.	.	.	12,598,000	2,932	4,286	24 00	21 80	19 50	6 18	6 35	5 63	.28	23 74
17. Northampton,	.	.	.	.	11,906,866	2,326	5,119	15 00	15 50	17 00	4 00	3 99	5 02	.30	25 73
18. Pittsfield,	.	.	.	.	14,947,670	3,864	3,868	10 80	17 80	16 90	4 14	4 20	5 10	.30	19 73
19. Quincy,	.	.	.	.	19,684,319	4,405	4,469	18 80	18 00	19 20	4 53	4 40	5 00	.26	22 37
20. Revere,	.	.	.	.	10,447,680	1,954	5,347	14 00	16 40	17 40	3 81	3 64	4 60	.26	24 63
21. Salem,	.	.	.	.	28,231,517	4,334	6,514	17 30	16 80	18 50	3 59	3 66	4 27	.23	27 81
22. Taunton,	.	.	.	.	20,518,320	4,360	4,706	16 80	18 60	18 00	4 20	4 44	4 99	.23	23 51
23. Waltham,	.	.	.	.	19,526,418	2,781	7,021	17 50	16 00	15 20	3 45	3 68	3 92	.26	27 58
24. Watertown,	.	.	.	.	10,588,800	1,132	9,354	15 20	17 50	16 40	3 49	2 88	3 36	.20	31 45
25. Woburn,	.	.	.	.	10,107,625	2,647	3,819	18 90	18 70	19 20	4 76	4 58	5 34	.28	20 41

Group III. — Cities whose valuation exceeds \$50,000,000.

1. Boston,	.	.	.	.	\$1,089,736,252	\$77,008	\$14,151	\$13 00	\$13 60	\$13 10	\$2 06	\$2 15	\$2 32	.18	\$32 86
2. Brookline,	.	.	.	.	74,530,000	3,151	23,653	12 20	11 80	10 50	1 62	1 64	1 74	.17	41 29
3. Cambridge,	.	.	.	.	91,542,795	13,255	6,906	17 50	16 40	17 10	3 44	3 47	4 12	.24	23 50
4. Fall River,	.	.	.	.	71,642,320	12,649	5,664	17 20	17 80	17 80	3 23	3 45	3 91	.22	22 15
5. Lowell,	.	.	.	.	71,251,372	10,584	6,732	17 40	18 00	19 60	3 59	3 54	4 23	.22	28 51
6. Lynn,	.	.	.	.	51,076,898	9,241	5,527	17 40	17 60	17 80	3 79	3 92	4 74	.27	26 21
7. New Bedford,	.	.	.	.	56,107,418	7,399	7,583	16 20	19 20	19 20	2 39	2 92	3 42	.18	25 96
8. Newton,	.	.	.	.	56,411,820	5,025	11,226	16 20	16 20	15 40	2 73	2 71	3 13	.20	35 19

TABLE OF DATA RELATIVE TO THE NON-SCHOOL-FUND TOWNS — *Concluded.*  
*Group III. — Cities whose valuation exceeds \$50,000,000 — Concluded.*

TOWNS AND CITIES.	Valuation May 1, 1899.	Average membership of the public schools for 1899-1900.	Valuation per pupil in the average membership.	TAX RATE,—DOLLARS ON A THOUSAND.			TAX FOR THE SUPPORT OF THE PUBLIC SCHOOLS,—DOLLARS ON A THOUSAND.			Percentage of the entire municipal tax expended for support of the public schools for 1899-1900.	Amount raised by taxation and expended for support for each pupil in the average membership for 1899-1900.
				1897.	1898.	1899.	1897.	1898.	1899.		
9. Somerville, . . . . .	\$51,201,350	9,298	\$5,507	\$17 30	\$17 90	\$16 30	\$4 06	\$4 21	\$4 78	.29	\$26 34
10. Springfield, . . . . .	69,869,847	9,072	7,702	13 00	13 80	13 60	3 09	3 37	4 33	.32	33 38
11. Worcester, . . . . .	112,336,099	18,385	6,110	14 80	16 20	16 00	3 96	3 99	4 50	.28	27 52
<i>The State as a whole.</i>											
State, . . . . .	\$2,876,021,222	399,423	\$7,200	\$15 39	\$15 84	\$15 66	\$3 10	\$3 20	\$3 62	.23	\$28 06



*Corresponding Data for the State as a Whole.*—The following facts are for the State as a whole :—

1. Valuation of the State May 1, 1899, . . . . .	\$2,876,021,222
2. Average membership of the public schools, 1899, . . . . .	399,423
3. Valuation behind each person in the average membership, . . . . .	\$7,200 00
4. Average municipal tax rate for 1897, . . . . .	15 39
Average municipal tax rate for 1898, . . . . .	15 84
Average municipal tax rate for 1899, . . . . .	15 66
5. Average municipal tax for school support for 1897, . . . . .	3 10
Average municipal tax for school support for 1898, . . . . .	3 20
Average municipal tax for school support for 1899, . . . . .	3 62
6. Percentage of entire tax expended for support in 1899, . . . . .	23
7. Amount raised by taxation and expended for school support of each person in the average membership, . . . . .	\$26 06

*Comparison of Local Data with the State Averages.*—Upon comparing with the foregoing State averages the corresponding data for the 250 school-fund towns, the following facts appear :—

1. That 13 of these towns have a valuation behind each person in the average membership of the public schools larger than the State average of \$7,200.

2. That 126 of these towns for 1899 had a lower municipal tax rate than the State average of \$15.66.

3. That 51 of these towns raised by taxation and expended for the support of public schools for 1899 a less sum for each thousand dollars of valuation than the State average of \$3.62.

4. That 29 of these towns devoted a less percentage of their total tax for 1899 to school support than the State average of 23 per cent.

5. And that 13 of these towns raised by taxation and expended for the school support of each person in the average membership of the public schools for 1899 a sum larger than the State average of \$26.06.

Upon making a similar comparison for the 103 non-school-fund towns, the following facts appear :—

1. That 80 of these towns have a valuation behind each person in the average membership of the public schools that is less than the State average of \$7,200.

2. That 71 of these towns have a higher municipal tax for 1899 than the State average of \$15.66.

3. That 79 of these towns raised by taxation and expended for the support of public schools for 1899 a larger sum for each thousand dollars of valuation than the State average of \$3.62.

4. That 72 of these towns devoted a greater percentage of their total tax for 1899 to school support than the State average of 23 per cent.

5. And that 62 towns raised by taxation and expended for the school support of each person in the average membership of the public schools for 1899 a sum less than the State average of \$26.06.

The foregoing facts, as well as others that careful study would reveal, indicate forcibly enough the need of readjusting the distribution of the income of the school fund not only to changed conditions but to a better knowledge of old conditions. The State makes its demands impartially upon all. It aims to reduce the stress where its demands press unduly. To extend its aid to wealthy towns that tax themselves for their schools far below the average liberality and self-sacrifice of the State, to withhold its aid from poor towns that are compelled to tax themselves for their schools far above the average liberality and self-sacrifice of the State; nay, to require the poor towns to come to the aid of the wealthy, which is a necessary consequence when State aid goes to the latter and not to the former, — these are extremes, anomalies, incongruities, indeed, in a State policy that is admirable in the main, but they none the less merit correction.

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

DR.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.

CR.

1900.		1900.		1900.	
Expended for Bridgewater Normal School, . . . . .	\$41,473 00			Appropriation for 1900 (chapter 87, Acts of 1900), . . . . .	\$248,516 00
Expended for Fitchburg Normal School, . . . . .	36,579 20			Received from city of Fitchburg, . . . . .	10,679 21
Expended for Framingham Normal School, . . . . .	28,852 80				
Expended for Hyannis Normal School, . . . . .	22,594 87				
Expended for Lowell Normal School, . . . . .	28,494 50				
Expended for North Adams Normal School, . . . . .	24,984 76				
Expended for Salem Normal School, . . . . .	28,499 86				
Expended for Westfield Normal School, . . . . .	25,811 99				
Expended for Worcester Normal School, . . . . .	21,674 16				
Balance unexpended, . . . . .	\$258,965 14				
	230 07				
			\$259,195 21		\$259,195 21

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

Dr.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Continued.*

Cr.

1900.		1900.	Appropriation apportioned by the Board,		\$41,473 00
Bridgewater Normal School:—					
Salary of principal, . . . . .	\$3,000 00				
Salaries of assistants, . . . . .	20,110 00				
Janitor service, . . . . .	1,250 00				
Repairs and furniture, . . . . .	3,304 72				
Watchman, . . . . .	700 00				
Printing, . . . . .	739 60				
Fuel, . . . . .	1,426 51				
Advertising, . . . . .	164 42				
Apparatus, . . . . .	633 75				
Books, . . . . .	826 87				
School of observation, . . . . .	6,614 49				
Engineer, . . . . .	800 00				
Fireman, . . . . .	550 00				
Water, . . . . .	59 08				
Telephone, . . . . .	17 31				
Lights, . . . . .	229 47				
Principal's expenses, . . . . .	25 24				
Clerical assistance, . . . . .	774 69				
Stationery, . . . . .	246 85				
		\$41,473 00			\$41,473 00
Fitchburg Normal School:—					
Salary of principal, . . . . .	\$3,000 00				
Salaries of assistants, . . . . .	23,872 57				
Janitor service, . . . . .	1,900 00				
Repairs and furniture, . . . . .	1,512 47				
Fuel, . . . . .	1,113 64				
			Appropriation apportioned by the Board, Received from the city of Fitchburg,		\$25,900 00 10,679 21

Printing, . . . . .	206 70				
Stationery, . . . . .	701 19				
Apparatus, . . . . .	536 98				
Books, . . . . .	1,281 37				
Advertising, . . . . .	45 23				
Gas, . . . . .	544 40				
Engineer, . . . . .	700 00				
Water, . . . . .	31 85				
Telephone, . . . . .	76 94				
Clerical assistance, . . . . .	512 86				
Lectures, . . . . .	543 00				
Balance unexpended, . . . . .	\$36,579 20		\$36,579 21		
	01				
Framingham Normal School:—					
Salary of principal, . . . . .	\$3,000 00				
Salaries of assistants, . . . . .	15,190 77				
Janitor service, . . . . .	844 98				
Repairs and furniture, . . . . .	2,498 71				
Fuel, . . . . .	2,143 87				
Printing, . . . . .	124 29				
Apparatus, . . . . .	481 05				
Books, . . . . .	434 07				
Advertising, . . . . .	41 00				
Stationery, . . . . .	263 11				
Water, . . . . .	193 18				
Accountant, . . . . .	699 96				
Engineers, . . . . .	1,946 44				
Amount carried forward, . . . . .	\$27,861 43				

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR.

## APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — Continued.

CR.

1900.	Amount brought forward, .	\$27,861 43	1900.	Amount brought forward, .	\$28,853 00
	Framingham Normal School — Con.				
	Telephone, . . . . .	57 35			
	Household arts, . . . . .	788 18			
	Clerical assistance, . . . . .	145 84			
		\$28,852 80			\$28,853 00
	Balance unexpended, . . . . .	20			
		\$28,853 00			
	Hyannis Normal School:—			Appropriation apportioned by the	\$22,595 00
	Salary of principal, . . . . .	\$3,000 00		Board, . . . . .	
	Salaries of assistants, . . . . .	9,230 16			
	Janitor service, . . . . .	1,340 94			
	Repairs and furniture, . . . . .	4,453 08			
	Fuel, . . . . .	1,289 96			
	Apparatus, . . . . .	1,248 12			
	Stationery, . . . . .	198 97			
	Books, . . . . .	1,047 25			
	Printing, . . . . .	240 42			
	Telephone, . . . . .	23 38			
	Watchman, . . . . .	133 20			
	Expenses of principal, . . . . .	133 08			
	Clerical assistance, . . . . .	76 15			
	Lectures, . . . . .	180 16			
		\$22,594 87			\$22,595 00
	Balance unexpended, . . . . .	13			

Lowell Normal School :—	\$3,000 00	Appropriation apportioned by the Board, . . . . .	\$28,495 00
Salary of principal, . . . . .	12,638 24		
Salaries of assistants, . . . . .	960 00		
Janitor service, . . . . .	2,713 32		
Repairs and furniture, . . . . .	1,538 34		
Fuel, . . . . .	840 00		
Engineer, . . . . .	25 50		
Advertising, . . . . .	1,175 50		
Books, . . . . .	696 68		
Apparatus, . . . . .	737 14		
Stationery, . . . . .	75 94		
Lighting, . . . . .	100 12		
Printing, . . . . .	71 98		
Ice, . . . . .	174 29		
Telephone, . . . . .	98 25		
Water, . . . . .	2,900 00		
Model school, . . . . .	605 00		
Clerical assistance, . . . . .	149 20		
Lectures, . . . . .			
Balance unexpended, . . . . .	\$28,494 50		\$28,495 00
	50		
North Adams Normal School :—	\$3,000 00	Appropriation apportioned by the Board, . . . . .	\$24,985 00
Salary of principal, . . . . .	13,363 65		
Salaries of assistants, . . . . .	600 00		
Janitor service, . . . . .	2,117 51		
Repairs and furniture, . . . . .			
Amount carried forward, . . . . .	\$19,081 16	Amount carried forward, . . . . .	\$24,985 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.  
APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Continued.*

Dr.

Cr.

1900.	Amount brought forward, No. Adams Normal School — <i>Con.</i>	1900.	Amount brought forward, .	\$24,985 00
	Fuel, . . . . .			
	Apparatus, . . . . .			
	Printing, . . . . .			
	Stationery, . . . . .			
	Books, . . . . .			
	Advertising, . . . . .			
	Engineer, . . . . .			
	Lights, . . . . .			
	Water, . . . . .			
	Telephone, . . . . .			
	Clerical assistance, . . . . .			
	Principal's expenses, . . . . .			
	Model school, . . . . .			
	Lectures, . . . . .			
	Balance unexpended, . . . . .			\$24,985 00
	Salem Normal School: —			
	Salary of principal, . . . . .			
	Salaries of assistants, . . . . .			
	Janitor service, . . . . .			
	Repairs and furniture, . . . . .			
	Fuel, . . . . .			
	Stationery, . . . . .			
			Appropriation apportioned by the Board, . . . . .	\$28,500 00



Books, . . . . .	1,494 64			
Advertising, . . . . .	32 50			
Apparatus, . . . . .	1,057 71			
Fireman, . . . . .	600 00			
Kindergarten maid, . . . . .	100 00			
Telephone, . . . . .	75 32			
Lighting, . . . . .	218 97			
Water, . . . . .	134 05			
Printing, . . . . .	529 34			
Engineer, . . . . .	1,000 00			
Model school, . . . . .	1,390 00			
Lectures, . . . . .	133 40			
	<u>\$28,499 86</u>			
Balance unexpended, . . . . .	14	\$28,500 00		
Westfield Normal School : —				
Salary of principal, . . . . .	\$3,000 00		Appropriation apportioned by the	
Salaries of assistants, . . . . .	13,646 70		Board, . . . . .	\$28,500 00
Repairs and furniture, . . . . .	1,755 73			\$26,040 00
Janitor service, . . . . .	1,450 00			
Fuel, . . . . .	837 29			
Stationery, . . . . .	241 31			
Apparatus, . . . . .	309 24			
Advertising, . . . . .	50 45			
Books, . . . . .	830 82			
Printing, . . . . .	609 58			
Lighting, . . . . .	195 83			
Water, . . . . .	45 32			
	<u>\$22,972 27</u>		Amount carried forward, . . . . .	\$26,040 00

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Concluded.*

Dr.

Cr.

1900.	Amount brought forward, .	1900.	Amount brought forward, .	Appropriation apportioned by the Board, . . . . .
	\$22,972 27			
<i>Amount brought forward,</i>				
Westfield Normal School — <i>Con.</i>				
Boarding hall, . . . . .	2,479 14			
Clerical assistance, . . . . .	145 25			
Telephone, . . . . .	61 25			
Principal's expenses, . . . . .	81 33			
Lectures, . . . . .	72 75			
	\$25,811 99			
Balance unexpended, . . . . .	228 01	\$26,040 00		\$26,040 00
Worcester Normal School : —				
Salary of principal, . . . . .	\$3,000 00			
Salaries of assistants, . . . . .	13,221 84			
Janitor service, . . . . .	815 29			
Repairs and furniture, . . . . .	1,725 54			
Fuel, . . . . .	576 39			
Stationery, . . . . .	342 76			
Printing, . . . . .	377 82			
Apparatus, . . . . .	261 60			
Books, . . . . .	805 99			
Telephone, . . . . .	56 88			
Water, . . . . .	21 81			
Ice, . . . . .	71 66			
Lighting, . . . . .	150 39			
Lectures, . . . . .	12 00			
Typewriter, . . . . .	70 00			
				\$21,675 00

Music, . . . . .	100 00		
Principal's expenses, . . . . .	64 19		
	<u>\$21,674 16</u>		
Balance unexpended, . . . . .	84	\$21,675 00	\$21,675 00

## APPROPRIATION FOR NORMAL ART SCHOOL.

1900.		1900.	Appropriation (chapter 87, Acts of 1900), . . . . .	
Salary of principal, . . . . .	\$3,000 00			
Salaries of assistants, . . . . .	17,130 69			
Janitor service, . . . . .	1,000 07			
Repairs and furniture, . . . . .	307 05			
Fuel, . . . . .	1,226 75			
Lighting, . . . . .	228 95			
Water, . . . . .	84 30			
Advertising, . . . . .	95 64			
Printing, . . . . .	124 15			
Telephone, . . . . .	201 90			
Engineer, . . . . .	720 00			
	<u>\$24,119 50</u>			
Balance unexpended, . . . . .	16 50	\$24,136 00		\$24,136 00

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

Dr.	APPROPRIATION FOR THE AGENTS OF THE BOARD.	Cr.
1900.	1900.	Appropriation (chapter 87, Acts of 1900), . . . . .
John T. Prince, salary, . . . . .	\$2,500 00	\$12,750 00
John T. Prince, expenses, . . . . .	374 91	
G. T. Fletcher, salary, . . . . .	2,500 00	
G. T. Fletcher, expenses, . . . . .	479 42	
J. W. MacDonald, salary, . . . . .	2,500 00	
J. W. MacDonald, expenses, . . . . .	414 81	
Henry T. Bailey, salary, . . . . .	2,500 00	
Henry T. Bailey, expenses, . . . . .	573 76	
L. Walter Sargent, salary, . . . . .	590 00	
L. Walter Sargent, expenses, . . . . .	172 72	
Balance unexpended, . . . . .	\$12,605 62	
	144 38	\$12,750 00

## APPROPRIATION FOR SUMMER SCHOOLS.

1900.	1900.	Appropriation (chapter 219, Acts of 1900), . . . . .
Teachers and expenses :—		\$1,500 00
Summer school at Salem, . . . . .	\$845 41	
Summer school at Northampton, . . . . .	621 05	
Balance unexpended, . . . . .	\$1,466 46	
	33 54	\$1,500 00

## APPROPRIATION FOR TEACHERS' INSTITUTES.

1900.	Paid for instructors and expenses of institutes at Athol, Ayer, Barnstable (Hyannis), Charlemont, Chester, Colrain, Dalton, Dartmouth, Dedham, Franklin, Great Barrington, Hingham, Hinsdale, Medford, Nantucket, Northampton, Northfield, Plymouth, Reading, Salem, Sandisfield, Savoy, Southbridge, South Hadley, Southwick, Taunton and Ware, . . . . .		1900.	Appropriation (chapter 87, Acts of 1900), . . . . .	\$2,000 00
		\$1,903 71 96 29			
	Balance unexpended, . . . . .	\$2,000 00			\$2,000 00

## APPROPRIATION FOR AID TO NORMAL PUPILS.

1900.	Amounts paid: — Bridgewater school, . . . . . Fitchburg school, . . . . . Framingham school, . . . . . Hyannis school, . . . . . Lowell school, . . . . . North Adams school, . . . . . Salem school, . . . . .  <i>Amount carried forward,</i> . . . . .	\$440 00 50 00 130 00 170 00 50 00 180 00 210 00  \$1,230 00	1900.	Appropriation (chapter 87, Acts of 1900), . . . . .	\$4,000 00
				<i>Amount carried forward, . . . . .</i>	\$4,000 00

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

Dr.	APPROPRIATION FOR AID TO NORMAL PUPILS — Concluded.				Cr.
	1900.		1900.	Amount brought forward, . .	
	<i>Amount brought forward,</i>	\$1,230 00			\$4,000 00
	Amounts paid — <i>Con.</i>				
	Westfield school, . .	700 00			
	Worcester school, . .	70 00			
	Balance unexpended, . .	\$2,000 00			
		2,000 00			
			\$4,000 00		\$4,000 00

## APPROPRIATION FOR INCIDENTAL EXPENSES.

1900.	Amounts expended, as follows :—	1900.	Appropriation (chapter 87, Acts of 1900), . . . . .	\$2,000 00
	Expressage, . . . . .	\$294 84		
	Stationery, . . . . .	274 52		
	Printing, . . . . .	534 49		
	Typewriter and supplies, . . . . .	164 79		
	Postage, . . . . .	332 00		
	Books and periodicals, . . . . .	75 98		
	Portraits, . . . . .	14 50		
	Telephone, . . . . .	24 19		
	Binding, . . . . .	27 05		
	Rubber stamps, . . . . .	7 50		
	Balance unexpended, . . . . .	\$1,749 86		
		250 14		
			\$2,000 00	\$2,000 00

## APPROPRIATION FOR TRAVELLING EXPENSES OF MEMBERS OF THE BOARD.

1900.	Amounts paid, as follows:—	1900.	Appropriation (chapter 87, Acts of 1900), . . . . .	\$1,000 00
June 7,	J. D. Miller, . . . . .	\$42 08		
12,	Franklin Carter, . . . . .	99 36		
July 2,	E. H. Capen, . . . . .	18 43		
23,	K. G. Wells, . . . . .	30 51		
30,	Geo. H. Conley, . . . . .	64 65		
Dec. 11,	G. I. Aldrich, . . . . .	52 63		
26,	K. G. Wells, . . . . .	13 44		
	E. B. Stoddard, . . . . .	41 66		
	J. D. Miller, . . . . .	27 34		
27,	Geo. H. Conley, . . . . .	19 35		
31,	Alice F. Palmer, . . . . .	48 21		
		\$457 66		
	Balance unexpended, . . . . .	542 34		
		\$1,000 00		\$1,000 00

## APPROPRIATION FOR REGISTERS AND BLANKS.

1900.	Amounts paid, as follows:—	1900.	Appropriation (chapter 87, Acts of 1900), . . . . .	\$1,200 00
	11,500 school registers, . . . . .	\$198 37		
	Printing, . . . . .	188 41		
	Expressage, . . . . .	105 05		
	Binding, . . . . .	22 00		
	Postage, . . . . .	20 00		
	<i>Amount carried forward,</i> . . . . .	\$833 83	<i>Amount carried forward, . . . . .</i>	\$1,200 00

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

Dr.	APPROPRIATION FOR REGISTERS AND BLANKS — <i>Concluded.</i>			Cr.
1900.	<i>Amount brought forward,</i>		1900.	<i>Amount brought forward,</i>
	Amounts paid — <i>Con.</i>	\$833 83		\$1,200 00
	Stationery, . . . . .	13 18		
	Messenger, . . . . .	7 57		
	Balance unexpended, . . . .	\$854 58		
		345 42		
			\$1,200 00	\$1,200 00

## APPROPRIATION FOR EDUCATION OF DEAF CHILDREN.

1900.		1900.	Appropriation (chapter 87, Acts of 1900), . . . . .	\$63,000 00
Jan. 24,	Amounts paid, as follows : —			
	Sarah Fuller Home :			
	9 pupils, quarter ending Jan. 1,			
	1900, . . . . .	\$438 37		
Feb. 17,	Clarke School :			
	120 pupils, quarter beginning			
	Jan. 1, 1900, . . . . .	6,898 86		
Mar. 9,	American School :			
	62 pupils, quarter commencing			
	Mar. 1, 1900, . . . . .	3,100 00		
13,	Horace Mann School :			
	120 pupils, Feb. 1 to July 1,			
	1900, . . . . .	7,415 49		
21,	Transportation to Feb. 15, 1900,	641 89		



Apr. 10,	Sarah Fuller Home: 10 pupils, quarter ending April 1, 1900, . . . . .	477 50		
20,	Clarke School: 120 pupils, quarter commencing April 1, 1900, . . . . .	6,845 15		
June 6,	American School: 62 pupils, quarter beginning June 1, 1900, . . . . .	3,100 00		
July 9,	Horace Mann School: Transportation to May 15, 1900, . . . . .	670 38		
10,	Sarah Fuller Home: 11 pupils, quarter ending July 1, 1900, . . . . .	483 33		
13,	Care of Frank McInerney, Jan. 22-June 29, 1900, . . . . .	52 40		
	Care of Susie Fitzgerald, Sept. 7, 1899-Feb. 2, 1900, . . . . .	38 24		
23,	Clarke School: 123 pupils, quarter beginning July 1, 1900, . . . . .	6,918 75		
Aug. 24,	Boston School for the Deaf: 17 pupils, to Sept. 1, 1900, . . . . .	1,360 00		
Oct. 9,	Horace Mann School: 114 pupils, Sept. 1, 1900, to Feb. 1, 1901, . . . . .	6,743 66		
27,	Sarah Fuller Home: 11 pupils, quarter ending Oct. 1, 1900, . . . . .	489 45		
	<i>Amount carried forward, . . . . .</i>	<u>\$45,673 47</u>	<i>Amount carried forward, . . . . .</i>	<u>\$63,000 00</u>

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.

APPROPRIATION FOR EDUCATION OF DEAF CHILDREN — *Concluded.*

Cr.

Dr.		1900.	1900.	Amount brought forward, .	\$63,000 00
	<i>Amount brought forward,</i>				
	Amounts paid — <i>Con.</i>	\$45,673 47			
Nov. 1,	American School:				
	Clothing to July 1, 1900, .	490 12			
6,	61 pupils, quarter commencing				
	Sept. 1, 1900, . . . .	3,431 25			
	Clarke School:				
	120 pupils, quarter commencing				
	Oct. 1, 1900, . . . .	6,687 50			
13,	Horace Mann School:				
	Transportation to Oct. 15, 1900,	539 02			
21,	Perkins Institution:				
	Edith Thomas, to Oct. 1, 1900, .	700 00			
Dec. 1,	Boston School for the Deaf:				
	28 pupils, to Dec. 1, 1900, .	1,268 53			
31,	Sarah Fuller Home:				
	10 pupils, to Jan. 1, 1901, .	500 00			
	American School:				
	65 pupils, quarter commencing				
	Dec. 1, 1900, . . . .	3,656 25			
	Balance unexpended, . . . .	\$62,946 14	\$63,000 00		
		53 86			\$63,000 00

C. B. TILLINGHAST, *Treasurer.*

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## APPENDICES.

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APPENDIX A.

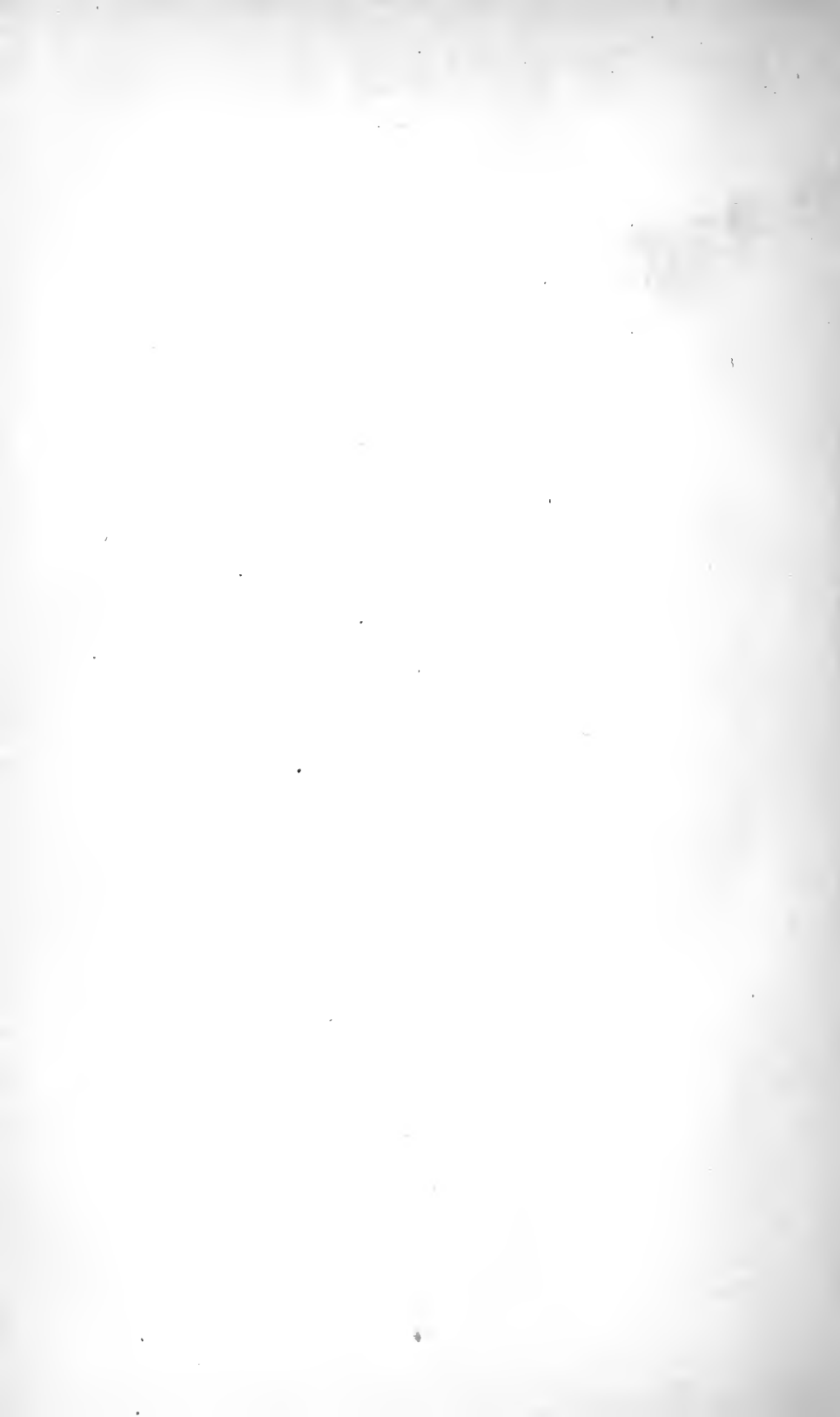
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REPORT OF JOHN T. PRINCE,

AGENT OF THE BOARD.

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# REPORT.

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*To the Board of Education.*

The character of my work during the past year has been essentially the same as that of previous years. There have been in recent years increasing demands upon my time for attendance upon educational meetings and for the preparation of special reports and papers. In meeting these demands, I have been obliged to give less time than formerly to school inspection. I have, however, been able to visit some or all of the schools of forty-two cities and towns, and have by correspondence and otherwise become acquainted with the educational conditions existing in most of the other towns of my section.

## MEETINGS OF SCHOOL COMMITTEES AND SUPERINTENDENTS.

In accordance with plans mentioned in my last report, several meetings of school committees and superintendents have been held during the year in Boston and Hyannis. At these meetings I commented upon the work of the schools which I had seen, and spoke of the desirable things to work for. There were also discussed, by members present, the following questions: teachers' meetings, promotions, annual reports of school committees and superintendents, records and blanks.

From the full attendance at the meetings and from expressions of those who attended them, I am encouraged to believe that they have met a want which could not be met in the larger and more formal meetings of superintendents. I shall hope, therefore, to be able to continue the meetings during the coming year.

## TEACHERS' INSTITUTES.

By reason of an increased appropriation and extended electric car service, I was enabled during the year to offer the

privileges of a teachers' institute to more teachers than ever before. Eight of such meetings were held in my section, attended by more than fourteen hundred teachers, who represented eighty-eight towns and cities. One encouraging feature of the attendance was the very general acceptance of the invitations sent. With the exception of the towns of Martha's Vineyard, only four of the ninety-two towns and cities invited failed to respond. In the case of Martha's Vineyard, the teachers were prevented from attending the Nantucket institute by reason of the fact that the institute, by mistake, was held before many of their schools had begun. This record of attendance is all the more gratifying, when it is considered that the institutes in many cases were held at a time very close to the time of meeting of the county conventions. Since so many of the county associations changed their time of meeting from the spring to the fall, there has been more or less disturbance, arising mainly from the hesitation, on the part of school committees, to close the schools upon two days so near together. So long as the meetings of the State institutes and county conventions maintain their present characteristics, it would seem best to have the more practical instruction of the institutes given to the teachers at the beginning of the fall term, while the somewhat general and inspirational addresses of the conventions would be quite as useful at another season of the year. By this separation in time of meeting, as well as in scope of work, there would be no conflict of interests of any kind between the institute and the convention. If, however, the county associations change the character of their meetings in the direction of giving instruction in methods, and insist upon holding their meetings in the fall, increased difficulties are likely to arise. It may be found best, under such circumstances, either to change our times of holding the institutes or abandon them altogether.

#### SUPERVISION OF PUPILS DURING RECESSES AND NOON INTERMISSIONS.

Protection from harm of every kind, moral as well as physical, is as imperative a function of the school as is that of instruction or training. The possible dangers attending the



contact of pupils with one another at recess are guarded against in some schools by the presence of the teacher or teachers. It would be well if this practice were followed in all schools. If, in addition to overseeing the pupils at recess, the teachers would accompany or lead them in their games, an added service would be performed, — a service which sooner or later will be recognized as of great educational value.\* What may be said of the advisability of overseeing the pupils at recess will apply with even greater force to the noon intermission. At this time pupils of both sexes and of all ages are frequently left together under no supervision whatever. It may be said, with truth, that there is little danger of contamination in most schools; but the fact that there is any danger of this kind, however slight it may be, is warrant for employing every means to guard against it. Letters recently received from superintendents give assurance that the dangers feared are not imaginary, and that they should be met by putting over the children, during the noon intermission, some responsible person. In two or three instances that have come to my notice, janitors are given this duty. In one large building, to which children from outlying districts are conveyed, a lady — an ex-teacher — is employed to oversee the children during the intermissions and to perform some other duties. In one school of about sixty pupils, from various parts of the town, there is a system of self-government, by which the pupils themselves organize for “deciding and punishing infringements of proprieties.” This is thought by the principal to meet fairly well the problem of looking after the pupils at noon. The following extract from a letter recently received from a district superintendent deserves special attention: —

For small schools, such as we have, I am inclined to believe that the proper encouragement of healthful, manly sports and recreations is more beneficial and appeals to the proper side of the pupil's nature better than such supervision as would be furnished by our school authorities. An ideal arrangement would be to have some competent person to direct the pupils' games, but that seems impossible with us. I believe that some provision should be made to prevent obscenity

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\* A detailed statement of the kinds of plays and games which are of greatest value is made in a special report upon school hygiene, which immediately follows this report.

and such evils as were mentioned above; but it does not seem to me that putting pupils under guard is the best way to accomplish it, as that would be an abnormal condition, and would exist for only a very small portion of their leisure hours.

The preventive and constructive plan of action suggested above ought, if possible, to be followed at all times. Proper supervision during all intermissions, as well as during school time, should mean the direction of the pupils' activities. The only difference between the treatment of pupils during the intermissions and during the regular school exercises lies in the conditions and kinds of activity. In schools employing several teachers there ought not to be any difficulty in making some arrangement by which one or another of the teachers can direct the occupations of pupils who remain during the long intermission. In schools having but one or two teachers the problem is a more difficult one. For hygienic and other reasons the teacher should have an entire change of scene at noon and a warm dinner or luncheon, and it will be difficult to secure these ends in a school having but one or two teachers. Some of the objections to a teacher's remaining with her pupils at noon will be met if she will assume a somewhat different relation to them from what she is accustomed to assume, by entering into their plays and games. Where supervision by teachers is not possible, it is strongly advised to secure the attendance at school of some parent of the neighborhood or other responsible person while the teacher is away, even though there is in such oversight and care the danger of appearing to place the pupils "under guard."

#### DISTRICT SUPERINTENDENTS.

The present plan of district supervision of schools has been in operation twelve years, and, in most places where it has been adopted, has been instrumental in greatly improving the schools. It may be said with confidence that no other measure, in the interests of the smaller towns, at all compares in importance with that which makes it possible for those towns to enjoy, at small expense to themselves, the benefits of skilled supervision. So great are the possible benefits, that any

threatened impairment of them is a matter of concern to all friends of education, especially to those who have for several years set forth the advantages of the plan of bringing together towns of low valuation into supervisory districts.

From my observation and that of others I am convinced that in some instances there has not been that care in the selection of district superintendents which should have been exercised, and that, taken as a whole, this lack of care has increased rather than decreased in recent years. This seeming neglect on the part of school committees may be due in part to a want of appreciation of the functions of supervision and to a consequent ignorance of the qualifications needed to perform them, and in part to the divided interests of towns comprising the district. But there is another, and, as I believe, more potent reason for a want of care in selecting district superintendents. Last year the State spent sixty-five thousand dollars on account of district superintendencies, three fifths of this amount going toward the salaries of superintendents and two fifths to the salaries of teachers. As the towns get the benefit of the amount given to teachers, the State in reality pays five sixths of the salaries of superintendents. Thus it is that the financial obligation of each district in carrying on the work of supervision is really but one sixth, while that of each town is but a fraction of this. That is, it is possible for a town whose share of the superintendent's time is one day a week, and whose proportion of his salary is one thirtieth, to determine who among all the candidates for the position shall be elected. It is unreasonable to suppose that the salary offered—a minimum of fifteen hundred dollars—will not induce many candidates to be pressed for the position, for reasons other than those of eminent fitness; and it is equally unreasonable to suppose that the committee of a town bearing a small share of the expense will not more readily yield to the importunity of unworthy candidates and their friends than if the entire expense were borne by that town.

These considerations and others which might be named may well raise the question whether the State ought not to impose certain conditions in the selection of district superintendents. Certainly so large an expenditure on account of salaries by the

State is not made in any other department of the public service without a direct protection of its interests, either through appointments by State boards, or through supervision, or both. Three ways of meeting possible dangers of unfit appointments of district superintendents have been suggested: (1) By placing the veto power of a person or board representing the State upon appointments made by school committees; (2) by providing that a person or board representing the State shall make appointments from candidates named by school committees; and (3) by placing appointments in the hands of school committees, the candidates to be named by a person or board representing the State. Fewer difficulties, perhaps, would be met by the last-named plan than by either of the others, and, at the same time, the protection of local interests would be most fully assured.

#### RECORDS AND REPORTS.

*Records required by Law.*—There is in the various cities and towns a very great variety in the kind and amount of statistics and records kept by school officials. Following the course pursued in previous reports, of giving some details of administration employed in different places, I will here outline some of the plans of keeping needed records and of making reports.

The first and most important consideration in determining both the character and amount of records to be made is that of use. The time has gone by for records of any kind to be made that are not distinctly serviceable in the interests of the schools. Traces of useless records of examinations and deportment of pupils and of fine bookkeeping are found in some places; but generally it may be said that teachers and superintendents are too busy with the processes of education to spend much time in recording the supposed results of it, or in keeping an elaborate system of accounts for show.

There are a few records required by law to be made. These requirements are the following:—

1. For the school committee: (1) “To keep a permanent record book, in which all its votes, orders and proceedings shall be recorded;” (2) to make out “a certificate in duplicate” of each teacher’s qualifications; (3) “to prescribe,”

presumably in writing, “a course of studies and exercises to be pursued” in the schools; (4) to “record the names, ages and such other information as may be designated by the State Board of Education, of all persons between the ages of five and fifteen years, and of all minors over fourteen years of age who cannot read at sight and write legibly simple sentences in the English language,” residing in the town or city on the first day of September; (5) to “cause the school registers to be faithfully kept in all the public schools;” (6) to “return the blank forms of inquiry, duly filled up, to the secretary of the Board of Education,” and to “specify in said returns the purposes to which the money received by their town or city from the income of the school fund has been appropriated;” (7) to “make a detailed report of the condition of the several public schools.”

2. For the superintendent of schools, or some person authorized by him in writing, to sign age and schooling certificates (where there is no superintendent of schools the certificate is to be signed by some one authorized by the school committee).

3. For the teachers to “keep the registers of attendance daily, and to make due return thereof to the school committee.”

Some or all of the above-named records to be made by the school committee may be delegated to the superintendent of schools, as is usually the case.

*Teachers' Annual and Monthly Reports.* — It should be observed that the conditions differ widely in the various cities and towns, and that what is advisable or necessary in a large system of schools may not be needed in a small one. The danger lies in requiring of teachers too many records rather than too few; and the question should always be asked, before any new statistics are required, “Are they actually needed to make more effective the work of the schools?” If intelligent teachers and superintendents cannot see any possible connection between the ends they desire to reach and the records they are required to make, the requirements may well be reconsidered and revised.

No reference is made here to the registers, returns and certificates whose forms are either designated by law or determined by the State Board of Education. There are, however, certain reports made by teachers which aid the superintendent

or school committee in making the annual returns to the State Board of Education. The statements made by the teacher in the blank form which constitutes the last leaf of the school register will give to the school committee or superintendent of schools much-needed information called for by the secretary of the State Board of Education.

Whenever information is needed for the annual report of the school committee or superintendent of schools or for any other purpose, additional questions might be asked. The following set of questions\* sent to each teacher calls for additional statistics needed for returns to the United States commissioner of education, and for possible use in the report of the school committee or superintendent of schools : —

*Report for the School Year ending .*

school.

, teacher.

1. Number of pupils tardy, . ; once, . ; twice, . ; three times, . ; more than three times, .
2. Whole number of cases of tardiness, .
3. Number of pupils absent, . ; one half day, . ; two half days, . ; more than one day, .
4. Names of pupils neither absent nor tardy : —
5. Number of cases investigated by the truant officer, .
6. Number of cases of truancy, .
7. Number of pupils who have been truants, . ; once, . ; twice, . ; three times or more, .
8. Number of cases of corporal punishment, .
9. Number of pupils who have been corporally punished, . ; once, . ; more than once, .
10. Aggregate number of days' attendance of all the pupils, .
11. Number of days in which the school was in session, including legal holidays, .
12. Number of seats, .
13. Number of visits during the year : —  
     By members of the school committee, .  
     By the superintendent of schools, .  
     By all others, .

Monthly or term reports containing facts which the superintendent desires to know or to have at hand are sometimes required from teachers, such as are called for in the following blank : —

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\* This blank and others which follow are made from blanks in actual use. No credit is given, however, for the reason that in most cases some changes have been made.

*Report for the Month ending* .

school.

, teacher.

1. Enrolment, .
2. Average membership, .
3. Average attendance, .
4. Per cent. of attendance, .
5. Number of cases of tardiness, .
6. Number of pupils tardy, .
7. Dismissals, .
8. Number of pupils neither absent nor tardy, .
9. Number of cases of truancy, .

[On the back of this sheet write the name, age and residence of each truant, and time of truancy.]

10. Number of cases of corporal punishment, .
11. On the back of this sheet give the following facts concerning non-resident pupils: Name, . ; name and residence of parent or guardian, . ; number of weeks of attendance since beginning of school year, .

*Teachers' Special Reports.* — A superintendent needs to have as intimate a knowledge as possible of what each teacher and school is doing. This knowledge he gets in part from personal inspection and in part from special reports of teachers, giving somewhat in detail the subjects that have been treated during a given period. The monthly or quarterly record of what has been done by each class is also useful to new and substitute teachers. It serves as a guide to such teachers in taking up the new work, and enables them at once to meet the needs of every class and pupil in an intelligent way. To aid teachers of graded schools in making the desired record, the following blank might be furnished them: —

*School Record*

for the

ending

school.

, teacher.

[To the teacher: Please fill this blank in duplicate at the close of the term, sending one copy to the superintendent of schools and leaving one copy in the desk of the school. If you are to leave the school in the middle of the term, please fill the blank for a part of the term, disposing of the copies as before mentioned. On the other side of this sheet, under the head of remarks, give the kind of scholarship, characteristics, etc.]

SUBJECT.	Grade .	Grade .
Reading, . . . .		

Space is to be given in the blank for each branch of study.

On the reverse side of the sheet the blank will be as follows :—

*Pupils of Grade .*

NAME.	Age.	Remarks.

In ungraded schools the work done might be outlined by subjects and classes, as indicated in the following blank :—

Town of .  
school. , teacher.

Class Record in [subject to be written here].

[Here may be inserted directions to teachers, as given in previous blank.]

CLASS.	Number of pupils.	Record of work done.
First, . . . . .		

On the reverse side the name, age, etc., of pupils will be written, as provided in the previous blank.

The information given in the school and class records is supplemented by a knowledge of what each school is doing daily and hourly. Such knowledge enables the superintendent to know when he may go to a school to hear any given exercise which he wishes to hear. The teacher should therefore send to the superintendent a carefully planned daily program at the beginning of each term, or whenever a change in the program is made. For purposes of clearness and definiteness, as well as of assistance to the teacher, forms similar to the following might be provided :—

*Order of Exercises.*

school. grade.  
, teacher.

[Make two copies, one to be kept on the desk, the other to be sent to the superintendent's office.]

From.	To.	Recitation.	Study.



Another form might be as follows : —

TIME.		Recitation.	BUSY WORK AND STUDY.			
Begins.	Length.		Grade I. (lowest).	Grade II.	Grade III.	Grade IV.

The teacher should send to the superintendent the details of any important event of the school, such as a case of truancy or of corporal punishment. To aid her in giving full and exact information, blanks should be furnished in which the desired points are indicated. For example, in a case of corporal punishment such questions as the following might be given in the blank : —

1. Name and age of person punished.
2. Date of punishment.
3. Manner and extent of punishment.
4. Witness.
5. What was the offence?
6. What do you know of his general character and home surroundings?
7. What previous offences has he committed, and what means of correction were employed?
8. State other facts of importance, such as response of parents to reports, times of previous punishments, with results, etc.

*Reports to Parents.* — To secure the co-operation of parents, occasional reports should be sent them of the character of the work done in school by their children. It is not necessary to send elaborate reports by percentages, nor is it necessary to send them very often. It is sufficient to send monthly or bi-monthly such information in respect to attendance, conduct and work in each subject as would be elicited in answer to the questions: How is my child doing in each branch of study? What is his behavior? This information could be given in the briefest possible form, cases which require explanation being left to special reports, which will be referred to later.

The report may be made upon a card of convenient size or upon a stiff paper folder, and enclosed in a stiff paper envelope addressed to the parent. Letters may indicate the character

of the work done, as A for excellent, B for good, C for fair, D for poor, and E for very poor. It would be well if the report for each branch of study could be given in a double column, so as to indicate both attainment and effort. Provision should be made either upon the face or back of the report for the teacher's signature and also for the parent's signature to be made every time the report is sent home. There should also be a careful explanation of the meaning of the letters, and a statement of what is desirable for the parent to do in the interests of the child.

The following form of report is suggested as practicable. With some variations, it is used with success in many schools. If thought best, the statement to parents could be made in the name of the superintendent of schools, on the reverse side. In this case it might be well for a fuller statement to be made, embodying the aims and purposes of the schools, and the desirability of a full co-operation on the part of parents.

Report of		<i>Public Schools.</i>										class.	
		school.											
FOR THE MONTH OF —	Days absent.	Times tardy.	Times dismissed.	Conduct.	Industry.	Reading.	Writing.	Spelling.	Composition.	Grammar.	Arithmetic.	Geography.	Signature of parent or guardian.
Sept., .													
Oct., .													
Nov., .													
Dec., .													
Jan., .													

*To the parent or guardian.*

A means excellent; B, good; C, fair; D, poor; E, very poor.

If the scholarship or deportment continues to be poor, will you please call at the schoolroom for further particulars, especially if poor health or any other circumstance prevents from doing more work. Irregularity of attendance greatly interferes with the progress of the pupil, and may oblige to repeat the work of a term or year. You are cordially invited to visit the school at any time.

Please sign and return as soon as possible.

, teacher,

For cases of pupils who are thought to be able to do a greater amount of work, and who may with extra effort be entitled to a special promotion to a higher class, a form of letter may be furnished the teacher to be filled out, of some such nature as the following : —

does the work of the class so well and so easily that I am led to believe            will be able with some extra work to go into a higher class before the regular time of promotion. If in your opinion            health will warrant            taking up extra work, and if you think it desirable for            to do so, will you kindly inform me, or call at the schoolroom soon for consultation.

If for any reason a pupil does the work assigned him so poorly as to render his retention in his class doubtful, his parents ought to be informed of the fact in sufficient time for them to co-operate with the teacher in securing from the pupil a greater degree of effort if deemed desirable. At least two months before the regular time for promotion a letter in some such terms as are expressed in the following blank will be found useful both in securing the co-operation of the parents and in preventing possible complaints : —

You will see by            monthly report that            is not doing thoroughly the work assigned. Thus far this term neither the daily work nor the written examinations indicate that it will be best for            to go into a higher division next           , but that it may be necessary for            to review the present studies another term. If, however, you think it possible or best for            to do more work, will you please call here at the schoolroom or drop me a note, so that we can have a better understanding of            needs and capacity, and arrange the work with reference to them.

The co-operation of parents is especially needed in dealing with unruly pupils. It may be secured by the teacher's sending a letter in the following terms : —

You will see by            monthly report that            deportment has not been good. I am sorry to inform you that it is still unsatisfactory. I think it best to inform you of the fact before any serious form of punishment is resorted to.

In all the blanks for letters here mentioned it will be understood that dotted lines for the date, address and subscription will be printed, also lines for special explanations by the teacher.

The recording of a general statement of each pupil's characteristics mentioned above suggests the desirability of extending the record so as to give details and to cover a period of years, somewhat after the manner of the life book kept in the schools of France. The record may be made periodically, as at the close of a term or year, or it may be made whenever a noteworthy observation is made of any pupil's conduct or work. The following blank suggests the simplest method of following the former plan:—

Born in \_\_\_\_\_ ; on \_\_\_\_\_  
 Name, \_\_\_\_\_  
 Parent's name, \_\_\_\_\_ Address, \_\_\_\_\_

GRADE, .																												
YEAR, . .	1900-1901.				1901-1902.				1902-1903.				1903-1904.				1904-1905.											
QUARTER, .	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
Days present, .																												
Scholarship, .																												
Effort, . .																												
Conduct, .																												

A means excellent; B, good; C, fair; D, poor; E, very poor.

A more elaborate and in some respects a more useful record would be that made in small notebooks, one notebook being devoted to each pupil, and being intended for a series of years. The record could be made at regular or irregular times. The pages of the book might be blank for statements of any kind that the teacher is disposed to make, or have printed upon them topics or questions to indicate to the teacher desirable points of observation. The following blank page is suggested:—

1. Date of observation,
2. Age of pupil,        years,        months,        days.
3. Sight (good or defective),
4. Hearing (good or defective),
5. General health (good, fair, poor),
6. Temperament (nervous, equable, sluggish),
7. Power of observation (good, fair, poor),
8. Power of attention (good, fair, poor),
9. Power of application (good, fair, poor),
10. Memory: verbal,        ; thought,
11. Imagination: reproductive,        ; creative,
12. Language: originality,        ; fluency,
13. Reasoning (good, fair, poor),
14. Leading feeling through which to govern,
15. Self-control (good, fair, poor),
16. Industry (good, fair, poor),
17. Obedience,
18. Truthfulness,
19. Trustfulness,
20. Subject of deepest interest,
21. Objectionable habits,
22. General remarks:

, *teacher.*

The study and knowledge of individual children such as is implied in a proper filling out of the above life book two or three times a year may not be possible under conditions which now exist in most places; but in the good time to come, when the largest number of pupils that one teacher will be expected to know and teach is thirty, not only will it be possible for such a study of individual children to be made, but there will grow out of it (if good teachers are permitted to teach) such corrective and constructive individual work as will enable each child to do the most that he is capable of doing and be the most that he is capable of being. Then will be accomplished the purpose of education, which Plato declared to be "the giving to the body and to the mind all the beauty and all the perfection of which they are capable."

Some of the matters referred to in this report are discussed at some length in a special report upon school hygiene, which is herewith respectfully submitted.

JOHN T. PRINCE,

*Agent of the Board.*



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APPENDIX B.

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NOTES UPON SCHOOL HYGIENE,

BY

JOHN T. PRINCE,

AGENT OF THE BOARD.

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# SCHOOL HYGIENE.

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## INTRODUCTORY NOTE.

The following statement is a brief summary of the best thought attainable at present upon the preservation of health and prevention of disease, so far as the conditions and practices of the schools are concerned. It is made chiefly for the benefit of school officers who may not find it convenient to consult the authorities upon the various subjects treated, and who are ready to be guided by the experience of others.

The large amount of ground covered and the limits of a pamphlet intended only for general use prevent an exhaustive or full treatment of any of the subjects. Little space is given to a discussion of present needs or to proofs of existing faulty conditions. Investigations have sufficiently shown that in all school buildings except those which have been recently built or renovated the hygienic conditions, so far at least as ventilation and lighting are concerned, are almost universally poor. Reports of recent investigations in Europe and this country are cited by Dr. William H. Burnham of Clark University (4, pp. 27, 28)\* and by Dr. A. G. Young, secretary of the Maine State Board of Health (2, p. 85). Other reports of investigations made by school boards and local associations in several American cities are given in the following-named pamphlets and periodicals:—

Report on the Sanitary Condition of the Public Schools of Buffalo, by the Buffalo School Association, 1898.

Report upon the Boston Schools in the Publication of the Associa-

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\* The figures in parentheses refer to the numbered titles of reference books and articles which are printed at the close of this report. For a more full bibliography of the subjects connected with school hygiene, see Kotelmann's *School Hygiene*, pp. 353-382; also *Journal of Proceedings of the National Educational Association* for 1898, pp. 506-523. The last-named compilation, made by Dr. Burnham, consists of 436 titles of books and articles published in this country and Europe.

tion of Collegiate Alumnae for December, 1898, pp. 53-58. Richmond Hill, N. Y.

Sixth annual report of the Massachusetts State Board of Health, Lunacy and Charity.

Annual reports of inspection department of the Massachusetts District Police since 1890.

Report of the Mayor's Sanitary Commission, Boston "Herald" of March 20, 1896.

Report of the Sanitary Condition of the Schools of Washington, D. C. (Senate Document No. 65), fifty-fifth Congress, third session.

Report upon the Condition of School Buildings of Baltimore, in the Baltimore "Sun," May 18, 1898.

Some of the above-named reports show a condition of school buildings which should excite general concern, for most of the places in which the investigations were carried on are places in which great interest is taken in education. The presumption is that, if the school buildings of such places as Boston, Philadelphia and Baltimore are a menace to health, those of most other places need to be looked after more closely than they are.

It is hoped that the standards of school sanitation here presented will cause officials in control to make a careful examination of existing conditions, and, if found faulty, to take measures for their correction. It is hoped also that the suggestions relating to the inspection and hygienic treatment of pupils will be of substantial assistance to superintendents and teachers.

#### HYGIENIC CONDITIONS.

The hygienic conditions of schools may be separated into two classes, one class consisting of those for which the public authorities are responsible, and the other class consisting of those for which the parents or pupils are responsible. Among the former class of conditions are: (1) the location of buildings, (2) construction and plan of buildings, (3) school equipment, (4) composition and adjustment of the school program. The conditions for which the parents or pupils are responsible are those which relate to (1) home requirements, (2) social diversions, (3) food and rest, (4) personal habits of pupils. These conditions will be treated briefly in order.

Two  
classes of  
conditions.

*Location of School Buildings.*

The ground upon which the schoolhouse is placed should be high, and the soil gravelly or sandy, so as to allow good drainage and a dry cellar. Clayey soil and soil in which there is refuse or organic matter are to be avoided. The building should not be located near a swamp or standing water, or any place whose odors are offensive. It should be so retired that the school shall not be disturbed by noises from without, and so far removed from the boundaries of the lot upon which it is placed that no building upon an adjoining lot can shut out the light from the school-rooms.\* In choosing the lot upon which the building is to be placed, let there be generous provision made for play and exercise grounds, and, if possible, room for shrubs and flowers.

Desirable  
features of  
location.

*Construction of School Buildings.*

Whenever it is possible to do so, an architect should be employed to draught plans and oversee the work of construction of school buildings. One who makes a careful study of school architecture is likely to provide all that health, convenience and good taste demand to a far greater degree of satisfaction than a carpenter or a building committee can provide without such help.† The following notes indicate the practice followed in the best constructed buildings.

An archi-  
tect needed.

School buildings should in no case be more than three stories high. In the country they should consist of but one or two stories. A cellar should be under the entire building, and be thoroughly ventilated. It should be cemented throughout, and be so arranged that it may be used for boys' and girls' playrooms in cold and stormy weather.

Height of  
school  
buildings.

The lower floor of the building should be not less than 18

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\* A detailed summary of desirable features of location for school buildings is given by Eulenberg and Bach (4, p. 19).

† In Massachusetts, plans and specifications of proposed school buildings must be approved by an inspector of factories and public buildings, according to chapter 481, section 25, of the Acts of 1894. Chapter 508 of the Acts of 1894 provides for inspection by the same official of all school buildings, with authority to correct existing defects of sanitation.

inches above the surface of the lot, and the walls should contain vertical air chambers. The floors of the schoolroom should be of hard-wood, kiln-dried boards not over four or five inches wide, fitted so close as to permit no cracks in which dirt can settle. The floors should be so built as to permit the least possible vibration and transmission of sounds. Double floors with heavy building paper or mineral wool between them will help to accomplish the desired end.\*

The size of the schoolroom should be determined by considerations of health as well as of convenience. Authorities differ as to the amount of space needed, probably owing to the fact that the amount of fresh air breathed depends less upon the size of the room than upon the way it is ventilated. It is safe, however, to assume that, on account of proper ventilation, a minimum of 16 square feet of floor space and 250 cubic feet of air space per pupil should be required.† The pupils' eyesight should also be considered in determining the size of the room. If, as is assumed by some authorities, ordinary writing upon a blackboard cannot be easily read beyond 30 feet, this distance or a little more should be the limit of the length of the room. The width of the room should be limited to the extent at which satisfactory lighting can be had from the windows on the side of the room. This distance has been generally regarded to be 24 feet. For purposes of ventilation and lighting, the room should not be less than 12 feet, and need not be more than 13 or 14 feet high.

Ample provision should be made for corridors and cloak rooms, placed in such relation to air and sunlight as to provide for good ventilation. Under no consideration should the outer clothing be hung in the schoolroom, as is sometimes the case.

Every school building should have one or more rooms that can be used for play in cold or stormy weather, and for physical

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\* Floors consisting of narrow boards or blocks of wood laid in cement have been found very satisfactory. They are described by Dr. Burgerstein (12, p. 54).

† These amounts are somewhat larger than the requirements in several European States, as quoted by Dr. Burnham (4, p. 25).

exercises at any time. These rooms should be well ventilated, and, if possible, exposed to the sun a portion of the day. They should be so situated as to be easily accessible from all the rooms, and so constructed that noisy exercises shall not disturb the schools when they are in session.

Play and  
exercise  
rooms

In the construction of school buildings, provision should always be made for the pupils to wash their faces and hands, and whenever it can be done, facilities for plunge or shower baths should be provided. This is especially important in schools whose pupils have not bathing facilities at home.\*

Facilities  
for washing  
and  
bathing.

The best material for wall blackboards is natural slate. They should be built into the walls at such parts of the room as will be most convenient for use and least harmful to the eyes. As a rule, they should not be placed where the reflection of light is such as to make it difficult for pupils at their seats to see what is written upon them, and in no case should they be placed between windows.

Material  
and place  
for black-  
boards.

### *Ventilation and Heating.*

By far the most important as well as the most difficult problem in the construction of schoolhouses is the method of their ventilation. The problem consists in keeping the air of school-rooms as nearly as possible in the condition of pure outdoor air, which consists of oxygen and nitrogen in certain proportions, with a small quantity of carbonic acid gas and water. After it has been through the lungs, the air is changed by an increase of about 4 per cent. in volume of carbonic acid gas and by a decrease of about the same quantity of oxygen. There is also found in vitiated air more or less of organic matter and an increased amount of watery vapor. Authorities differ as to the causes of the effects of breathing what is called "bad air," some averring that the organic matter from the skin and lungs is the cause of the deleterious effect, and some that the dangers lie not from the existence of any

Character  
of vitiated  
air.

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\* Baths have been introduced in a number of American and European schools. The reports of their use are very favorable to their continuance. For reports from Germany, see (4, p. 38; 11, p. 470).

poison in the respired air, but from the excess of the carbonic acid and deficiency of oxygen. But all agree, for one reason or another, that the amount of carbonic acid in the air is the measure of its impurity.\* The relative amount of carbonic acid in the air is ascertained in various ways, the simplest test being made by means of Wolpert's air tester, which consists of a test tube filled with lime water, and a rubber bulb with an attached glass tube for pumping the air to be tested into the lime water. The number of bulbfuls of air used in the test to make the lime water opaque, indicates, as shown by a table, the vitiated character of the air. This instrument, at best, can give but an approximate test of the character of the air, but sufficient, it may be, if found very bad, to warrant an accurate analysis or to provide better means of ventilation.† The quality of air may also be inferentially determined by estimating the amount of fresh air that is forced into or out of a room in a given time. This may be done by means of an anemometer placed in the current. The rate per second or minute multiplied by the number of superficial feet in the opening will give the volume, which may be compared with the amount needed.

Authorities are agreed that air containing 10 parts of carbonic acid to 10,000 is unfit to breathe, and that for healthy respiration air should contain not more than 7 parts of such gas to 10,000. Measured by such a standard, the air of most schoolrooms not provided with modern methods of ventilation would be regarded as bad or very bad.‡

The amount of air required for each child varies from 1,800 to 2,500 cubic feet per hour. If there is for each child the

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\* For statements as to the cause of contamination in breathing respired air and for making the amount of carbon dioxide in the air the measure of its impurity, see (1, p. 69; 3, p. 34; 12, p. 124; 27, pp. 18, 23; 20, p. 741).

† Sold by Codman & Shurtleff, Boston, Mass. More accurate testers are those of Pettenkoffer and of Smith-Lunge, both of which are fully described by Kotelmann (1, p. 73). The method given by Dr. Cohen is described by Professor Burrage (3, p. 37). Other methods of testing the air are described by Richards and Woodman (27, pp. 33, 35).

‡ Many tests made of the air in schoolrooms in this country and in Europe show most alarming results. From 20 to 50 parts of carbonic acid gas to 10,000 have been frequently found in schoolrooms, and sometimes the proportion has been found to be 70 and even 90 to 10,000. For a record of these tests, see (4, p. 27; 2, p. 85).

amount of space previously indicated (16 square feet of floor space and 250 cubic feet of air space), the air should be changed every ten or twelve minutes, — that is, Amount of space needed for each child. each pupil should be provided with at least 30 cubic feet of fresh air per minute.\* This amount of air, having a temperature of not less than 60°, may be introduced and distributed by properly located flues without producing dangerous draughts.

When the outside temperature is above 60° F., ventilation is easily effected by means of open windows and doors. To avoid dangerous draughts of the incoming air of a low temperature, boards are sometimes placed under the lower sashes of the windows, so as to allow the current of Ventilation by means of windows and doors. air to pass upward and away from the heads of the pupils. To effect the same end, the upper segments of windows are made to turn upon hinges. Open doors into large well-ventilated hallways have also been found useful means of ventilation.

To effect ventilation that is at all adequate in weather having a temperature below 50° F., the natural currents of air should be supplemented by artificial means, either by heated flues which eject the air from the room or by fans which force Two methods of artificial ventilation. air into it. By the former method, called the vacuum or gravity system, fresh air takes the place of the air which is forced by gravity from the room through the heated flues. By the latter method, known as the plenum system, the forced current of inflowing fresh air drives the vitiated air from the room through flues provided for the purpose.

In regulating the introduction of air, great care should be taken respecting the source of supply. The air should not be taken from the basement, but from the out- Source of supply of air. side, where there are no offensive odors or dust. Some means of furnishing moisture to the air should be employed.

Attention should be given to the size, situation and number

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\* This amount agrees with Dr. Billings's estimate, and is not far from the carefully wrought conclusions of De Chaumont, based upon the investigations of Pettenkoffer (4, p. 24).

of ventilating shafts. The size of the inlets must be large enough to supply fresh air sufficient to compensate for the air that is taken out, and the outlets must be of sufficient size to make the desired change of air.\*

The flues should be so situated as to provide for the fullest circulation of air in the room. Experiments have shown that good if not the best results are attained by placing the inlet in the middle or upper part of the wall and the outlet near the floor upon the same side. It is also advisable to have two or more outlets, so as to avoid draughts occasioned by rapidly moving currents.†

In rooms where the warm air enters only in the upper portion, and where there is no direct radiation, extra provision should be made for warming feet and drying clothing. This may be done by placing radiators or registers at the floor of the halls, where heating rather than ventilation is the main desideratum.

An open fire is a poor means of heating, but an excellent means of ventilation. Many modern school buildings have fireplaces in every room, in most of which no fire is ever made.

Doubtless the unused fireplace may serve as a means of ventilation, but not nearly so efficiently as a fireplace with even a little fire in it. Apart from possible dangers of draughts, there is probably no better means for carrying away the vitiated air than an open fire. The excuse usually offered for not having a fire in the fireplace is entirely insufficient. There is no good system of ventilation that does not require care, trouble and expense.

This may be a good place to say that skill and good judg-

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\* Professor Clark (6, p. 66) estimates that a shaft 20 feet high, with a difference in temperature of 20°, should have a sectional area of  $5\frac{1}{2}$  square feet to carry off 48,000 cubic feet per hour. This estimate is made upon the basis of supplying 1,000 cubic feet per hour for each pupil. To supply 2,000 cubic feet per hour, the sectional area of the outlet should be  $10\frac{1}{2}$  square feet.

† The matter of location of inlets and outlets is discussed fully by Professor Burrage (3, p. 43); also by Mr. Carpenter (7, p. 55), who says that much depends upon existing conditions. He says: "It has been proved practically that with rooms of about the proportion shown in the diagram [15:32] good results in the diffusion of heat and air are obtained by introducing the air at a point two thirds of the distance from floor to ceiling and near one corner, and locating the register for discharge of air on the same side of the room but near the floor and near the lower diagonal corner."



ment are necessary in looking after any appliance designed for ventilation. It should not be intrusted, for the sake of economy or any other reason, to ignorant or unreliable persons, since ordinarily as much depends upon the way in which a system of ventilation is managed as upon the system itself. Nor should a knowledge of the system used be confined to the engineer or janitor. For the sake of needed co-operation, the superintendent of schools and the teachers — especially the principal — of the school in which the system is used ought to know the construction of the system and the best method of working it.

**Management of apparatus.**

In the best systems of ventilation flushing of the schoolroom by natural air currents is necessary to carry off the organic dust and condensed vapors which cannot be fully taken away by the ventilating flues. Upon this point Professor Clark says (6, p. 63): "Nothing can take the place of aeration by means of open windows. Artificial ventilation, though required for changing the air when the windows are necessarily closed, is insufficient, even under the best circumstances, unless the room is from time to time thoroughly refreshed and purified by the sweep of the free winds through all its windows widely opened. Such an atmospheric washing should be secured three or four times daily in all weathers; at recess, particularly, it should be insisted on, banishing teachers and pupils from the room meanwhile, if necessary."

**Frequent sweep of winds through rooms necessary.**

In the choice of means of heating schoolrooms, the necessity of bringing into them the needed supply of warmed fresh air must be kept in mind. The direct radiation from stoves and from steam and hot water pipes does not accomplish this end, and is therefore not a desirable means of heating. This statement applies only to schoolrooms where there is not an adequate supply of warmed air by furnace or indirect radiation. Heating by direct radiation alone may be permitted in dressing rooms and halls, but not in schoolrooms. If, however, air from without is introduced behind the stoves and radiators, some of the objections are removed. The loss of heat by supplying air in this way is shown by Professor Woodbridge (8, p. 19). The method of supply-

**Direct radiation not desirable.**

ing fresh air in rooms where stoves are used and of constructing outgoing air ducts will be referred to later. Hot water as a means of heating is to be preferred to steam, for the reason that in moderate weather the heat can be better regulated by hot water than by steam, and that in very cold weather the air is not so likely to be overheated or "burned." \*

The objections urged against heating by the hot-air furnace are: (1) An unequal distribution of the heat in the various parts of a large building and in the upper and lower parts of each room; (2) the production and dissemination of offensive gases; (3) the occasioning of dryness of the air, already referred to. Makers of modern furnaces have sought to overcome all these objections, and in some measure have been successful, so far as small buildings are concerned; but for large buildings the hot-air furnace is not to be recommended.

Perhaps the most unsatisfactory means of heating school-rooms is the ordinary wood or coal stove, — the means most generally employed in country districts. To avoid the unequal distribution of heat in rooms heated in this way and to promote in some degree ventilation, the stove should be enclosed by a metallic jacket, the enclosed chamber being connected with the outer air by means of a shaft of sufficient size to admit the needed amount of air. In addition to this, flues should be so constructed as to carry away the vitiated air in sufficient quantity to keep the air of the room in good condition. To avoid radiation from overheated surfaces, two stoves should be provided for use on very cold days. A more detailed description of this method of heating and ventilation will be given later.

By far the best method of heating schoolrooms is by indirect radiation, by which coils of pipe are heated in chambers, from which the warmed air is taken into the rooms. This is done either by the plenum or by the gravity system, already referred to. On many accounts the plenum system is to be preferred, by which the warm air

\* The burning or dry sensation, as explained by Kotelmann (1, p. 113), is frequently due to the scorching of dust particles which come in contact with overheated surfaces.

is forced into the rooms by fans propelled either by electric or water motors or by steam. But in the opinion of good judges this plan works best when the foul-air flues are heated so as to draw the air from the rooms, or when these flues are connected with exhaust fans. The only objection to the fan system is the first cost. When the system is once established, the cost of maintaining it is said to be less than the cost of maintaining a simple gravity system. This is especially true when the steam used in operating the fans is used for heating the rooms.

The fan system.

It is not necessary to give in detail the plans of heating and ventilating by the method just described. It is used now in most of the larger modern buildings, and its merits may be easily tested by actual observation. But there is a class of school buildings about the ventilation of which great difficulty is found. I refer to the large number of one and two room country schoolhouses which are now practically without any means of ventilation, and which are heated only by stoves. To show that the desired ends and means of ventilation may be attained to some degree of satisfaction even in these smaller school buildings, two plans of systems in actual use are briefly described. They are such as meet the approval of our State inspectors, the standard of which is given in the following statement, which is sent to towns and cities by the department of inspectors of factories, workshops and public buildings:—

The heating and ventilation of one and two room buildings.

In the ventilation of school buildings the many hundred examinations made by the inspectors of this department have shown that the following requirements can be easily complied with:—

1. That the apparatus will, with proper management, heat all the rooms, including the corridors, to 70° F. in any weather.

Standard of requirements made by the Massachusetts authorities.

2. That, with the rooms at 70° and a difference of not less than 40° between the temperature of the outside air and that of the air entering the room at the warm-air inlet, the apparatus will supply at least 30 cubic feet of air per minute for each scholar accommodated in the rooms.

3. That such supply of air will so circulate in the rooms that no uncomfortable draught will be felt, and that the difference in tem-

perature between any two points on the breathing plane in the occupied portion of a room will not exceed  $3^{\circ}$ .

4. That vitiated air in amount equal to the supply from the inlets will be removed through the ventiducts.

5. That the sanitary appliances will be so ventilated that no odors therefrom will be perceived in any portion of the building.

To secure the approval of this department of plans showing methods or systems of heating and ventilation, the above requirements must be guaranteed in the specifications accompanying the plans.

Among the various kinds of jacketed stoves in use there seem to be none giving more satisfactory results than that described by Dr. J. G. Pinkham of Lynn in the nineteenth annual report of the Massachusetts State Board of Health. Some modifications of the plan have been made since it was first adopted, but the main features of the apparatus are retained, such as are described in the following extract from Dr. Pinkham's report: —

There are in each room two large stoves, one on each side of the room, near the front. Each stove is encased in a galvanized iron jacket about  $6\frac{1}{2}$  feet high, with a spreading base. Air is admitted to the space between the stove and its jacket by an air box running through the side wall, the opening for each stove having a sectional area of  $4\frac{1}{2}$  square feet, being large enough for the whole air supply of the room. In cool weather, one stove in each room is used; in cold weather, both stoves.

**Description of jacketed stoves such as are used in Lynn, Mass.**

There are two extraction flues, built in one stack, at the rear of the building, one with a sectional area of 5.2 square feet for the upper room, and one with a sectional area of 4.1 square feet for the lower room. They are of brick, and in an inner corner of each is a fire-clay smoke pipe connecting with the stove pipes. These smoke pipes end at the level of the chimney top, and the whole is covered with an iron cap, like an Emerson ventilator, but rectangular. For heating the flues one of D. W. Cushing's "ring cylinder" stoves is set into the *withe*, or partition between the flues, projecting into each. The flues are enlarged opposite the stove, to compensate for the obstruction of its bulk. As the cellar does not extend under the rear of the building, the flues end at the floor level of the lower room. The openings from the rooms into the extraction flues are made at this level, from the lower room directly through the wall, and from the upper room by means of a 30-inch tin pipe, running down beside the

stack, from the upper floor. The flue-heating stove is set about 3 feet above the lower floor, and access to it is had through an iron door opening into the schoolroom. Most of the air withdrawn from the rooms goes through large openings close to the stack; the remainder (15 or 20 per cent.) is drawn through ducts under the back platform, and thence into the extraction flues. The total area of outlet openings from each room is about equal to the sectional area of its extraction flue. All outlet openings are covered with wire netting of about one-inch mesh. Inlets on outside of building are protected by boxing and fine netting.

Superintendent Bruce of Lynn reports that the stove as above described is in some of the two, four and six room buildings of Lynn, and that they "find it satisfactory, with intelligent and attentive regulation by teacher and janitor." He regards it as "a practicable scheme for a one-room country school." Superintendent Hobbs of Rockland, Mass., reports its use in one such school of that town as very satisfactory. Its cost, he reports, including stove, jacket, flues and stack heater, is less than two hundred dollars.

Reports from the inspection department of the Massachusetts District Police seem to favor the use of small furnaces for one and two room buildings. The cost of them is said to be not more than most of the jacketed stoves in use, and they are in some respects more satisfactory. The following description of a furnace in use in Ayer, Mass., is taken from Inspector Moore's report of March, 1892:—

Small furnaces recommended for country schools.

The Washington Street school in this town is a frame building, containing four rooms, two on each floor. It was heated by wood stoves, and the air was, of course, bad. As there is no cellar under the building, the committee adopted the plan of heating by small portable furnaces, one in each room, open at the top like jacketed stoves.

Description of small furnace used in Ayer, Mass.

The air is supplied to these furnaces through galvanized-iron pipes of a cross-sectional area of 4 feet each, with a well-arranged valve, in control of the teacher. Two brick chimneys, each 3 feet square inside, were built to carry off the vitiated air. The openings to these chimneys are direct from each room, and each has a net area of 5 square feet. A small oil stove is placed in each chimney, a little above the lower opening.

The result of an inspection made November 5 indicated excellent work. Although the day was mild and there was very little fire in the furnaces, I found the amount of air passing through the rooms to be very large. In the west room on the second floor the amount was 1,750 cubic feet per minute, and a smoke test showed the circulation to be very good. The air in all the rooms was free from odor, and the teachers expressed themselves as highly pleased with the ventilation. I understand the cost was about one hundred and seventy-five dollars a room.

### *Lighting.*

The two chief considerations in reference to lighting school-rooms are the amount of light and the direction from which it enters the room. In several European States the ratio of window surface to floor surface in schoolrooms is fixed by law, at 1 to 6 when the building stands free, and 1 to 4 when the light is obstructed by neighboring buildings (1, p. 47). In Prussia the

**Ratio of  
window  
surface to  
floor sur-  
face.**

least amount required is 1 to 5, — a ratio now generally accepted as the least amount of lighting surface schoolrooms should have. This amount should be increased if the light is obstructed by high buildings or trees. Many authorities agree with Dr. Cohn, that there cannot be too much light in a schoolroom (12, p. 99). The test of brightness certainly should be applied to places farthest away from the windows, and upon cloudy days. The standard usually recognized in Germany (4, p. 34) is that of a minimum brightness on dull days of 10 normal metre-candles, *i.e.*, of 10 spermaceti candles, 1 metre distant, each

**The mini-  
mum of  
light  
needed.**

candle weighing  $\frac{1}{6}$  of a pound. Where photometric measurements cannot be made, Von Hoffman's method of testing the amount of light might be followed. He says that the light is insufficient when a normal eye cannot read the Snellen type No. 6 at a distance of 6 metres (4, p. 34). Other tests suggested by Dr. Burnham are to ascertain if every pupil can see some portion of the sky, or if every normally sighted pupil can, upon a cloudy day, read Diamond type at a distance of 30 centimetres.\* Dr. Burnham

**Distance  
of seats  
from win-  
dows.**

further says: "The light in schoolrooms is very apt to be deficient, because officials do not realize that light diminishes, not as the distance, but as the

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\* This foot-note is printed in Diamond type.

square of the distance." It seems reasonable to place 20 feet as the greatest distance from which any pupil should be seated from a well-lighted window.

As to the direction from which the light should enter the schoolroom, authorities are divided. Professor Forster, Dr. Young (2, p. 261) and others urge that schoolrooms be so situated that no direct rays of the sun can enter them; while Dr. Cohn, Dr. Burgerstein (12, p. 11) and many others advocate a southern exposure for the rooms. Perhaps a compromise may be made by

Direction  
from which  
light should  
enter the  
room.

having the room exposed to the sun's rays a small portion of the forenoon or afternoon. Dr. Kotelmann (1, p. 36) has this view, and says a southeast exposure is to be preferred. Again, there is some difference of opinion as to the proper direction of light in respect to the pupils at their seats. The weight of opinion, however, seems to favor admitting the light from the left of the pupils, or from the left and rear, provided the former light is the stronger. Nearly all authorities are agreed that lighting from both the left and right sides is not advisable. In no case should the light come to the pupils from the front. The windows should consist of large panes of glass of good quality. They should extend as near as possible to the top of the room, and be placed close together.

Venetian blinds \* and curtains of a dark color are not favored, on account of their obstruction to light. Fixtures should be used which will permit the curtain to be raised from the bottom, or so that it may be raised or lowered from the middle of the window, as circumstances require. It should be remembered, however, that the upper part of the window is much better for lighting purposes than the lower, and that it should not be covered by a curtain unless to shut out the direct rays of the sun.

Kind of  
curtains  
needed.

In rooms that are insufficiently lighted, the ceilings and walls should be light, but not dazzling. A light gray or green color for the walls is recommended by good authorities. The light of such rooms is increased and diffused by the use of prisms and reflectors. Hennig's daylight re-

Color of  
walls.

\* Professor Forster (3, p. 55) and Dr. Kotelmann (1, p. 50) both condemn the use of Venetian blinds in schoolrooms. Dr. Kotelmann estimates that only .6 to 1.5 per cent. of the daylight passes through the slats inclined 45°.

flector is described by Kotelmann (1, p. 46) and commended by him. In our own country the products of the American Luxfer Prism Company of Chicago and New York have been in successful use in stores, factories and schoolrooms. From tests recently made in the Massachusetts Institute of Technology, under the direction of Mr. Charles L. Norton, the following conclusions were reached, as stated by Mr. Edward Atkinson :—

**The use of  
prisms and  
reflectors  
for the  
diffusion of  
light.**

*First.*—Windows of the customary height, but of one third the width commonly adopted, when glazed with ribbed or suitable prismatic glass, will give on a bright day as much effective light as the full width of window glazed with plane glass; on a cloudy day, or in a position where the light from the sky is derived from a limited area, even a greater ratio.

*Second.*—Windows of the common type now in mills, workshops or schoolrooms, now fitted with plane glass, if reglazed in the upper half only with ribbed or prismatic glass, will yield on a bright day more than fifty per cent. excess of effective light, or on dark days a larger ratio. If reglazed down to but not including the lower panes (in which we advise plane glass), the increase in effective light will be much greater.

### *Water-closets and Outbuildings.*

In places where there are systems of sewerage and water supply, there ought not to be any difficulty in keeping the water-closets in a perfectly good condition. The problem of preventing an offensive and unsanitary condition of the premises is especially difficult in places where there is no water system for flushing and no sewers to carry off the refuse matter. Where there is a water supply without sewers, the temptation is to empty the refuse into cesspools. But this should not be done. The cesspool Professor Burrage regards as “one of the greatest of sanitary evils” (3, p. 60), and as “more dangerous than the badly constructed sewer.” Where circumstances do not permit the erection of water-closets, or the ventilating, drying or fire closets (3, p. 61) which are now successfully used in many places, separate sanitariums must be provided, and cared for in ways which will prevent the dangers of infection or the

**The dan-  
ger of  
cesspools.**

**Drying  
closets.**



annoyance of bad odors. To accomplish these ends, (1) the privies should be placed at a good distance from the school building; (2) the privy vault should be entirely above the surface of the ground, the catch-basin being constructed so as not to leak; (3) provision should be made for the storage of dry earth or sifted coal ashes, and for sprinkling the catch-basin daily with this material. “Nothing less commendable” than these accommodations for sanitarious, says Dr. Young (2, p. 253), “should be tolerated.”

The dry-earth system.

### *Water Supply.*

The purity of water supply for schools is no less important from the standpoint of health than that of the air supply. Under the laws of the State there seems to be ample protection from harm in the case of public water supplies. The greatest danger lies from the use of water taken from wells in remote country sections, and especially wells that are used only a portion of the year. Respecting these sources of water supply for schools Dr. Frank Wells says (26, p. 17): “During the vacations no water is taken from them, and hence it becomes stagnant. In the autumn, when the term commences, the water in this condition is drunk by the scholars, thereby, either alone or in connection with the unsanitary condition of the surroundings, tending to produce sickness, which may be wrongly attributed to the houses in which the children dwell.”

The use of wells in country towns.

Unfortunately, the purity of water, unlike that of air, cannot be ascertained by simple tests (27, p. 80). The only safe course for school authorities appears to be to examine carefully the surrounding conditions, nearness to privy vaults, cesspool, drains, etc., and, if there are possible occasions of contamination, to call the aid of the State Board of Health or an expert analyst.

Examination of conditions advisable.

### *Baths.*

The great use of baths in connection with the schools is becoming to be recognized, both on account of the means they afford for cleanliness and for the habit which frequent bathing

tends to form. School baths have been introduced in several cities of Germany, with great success. Dr. Burnham describes briefly the plan pursued in these cities, and further says (4, p. 38): "The reports from those schools where baths have been introduced are uniformly favorable. The bathing is usually voluntary, but it is generally approved by the parents. Some of the children have a sort of hydrophobia at first, but generally after a little time enjoy the bath. In Gottingen, after a half year, ninety per cent. of the pupils voluntarily shared in the school baths. The children return to their study refreshed in mind and body. There is an improvement in the air of the schoolroom. It is maintained that the bath has an educating effect upon the children, in giving them a sense of cleanliness. Much stress is placed also upon the educating influence that the introduction of school baths has upon the parents, in making them care for the children's underclothing and the like. In many cases great improvement in the health of children has resulted from the habit of regular bathing."

In Boston, one of the schools — the Paul Revere — is supplied with baths whose use is thus described by the principal, Mr. Dutton: "Since the baths have been opened, an average of one hundred and seventy-five pupils have had a bath every school day. This gives every pupil in the school over eight years of age an opportunity to bathe once a week. Ninety-five per cent. improve the privilege. The baths are in charge of a matron; each class is assigned a time to bathe, as they would for a recitation."

"The scheme works smoothly and beautifully, and is a blessing to the children physically, mentally and morally, and a blessing to the teachers, too. I am inclined to think that, if a child bathes once a week from eight to fourteen years of age, he will always seek to be clean and wholesome."

"The city furnishes towels and soap. The average expense thus far, per bath, has been about 3½ cents. I think and trust that the time is at hand when all of our schools will be equipped not only with shower baths but with swimming pools. As educational agents they cannot be surpassed."

The expense given above is much greater than that of the school baths in Germany, which are stated to be about one

fourth of a cent apiece. In Germany, however, "the pupils bathe by classes, the bathing is carefully supervised, pupils come in divisions like soldiers and follow each other every five minutes, and thus a large number of pupils bathe in a very short time" (4, p. 38).

### *Furniture and Furnishings.*

Investigations have clearly shown that there is a close relation between certain physical deformities and wrong habits of sitting occasioned by continuously constrained and unhygienic positions in school. As a consequence, the importance of providing proper desks and seats in the interests of health is now generally recognized. The width, height and shape of the seat, the shape, height and slope of the desk, the distance between the seat and the desk and the difference between the height of the seat and that of the desk, are considerations which have received the close attention of specialists both in Europe and this country.\* The following statements may be said to fairly summarize their conclusions.

The height of the desk should be the distance from the sole of the foot to the knee, equal, according to careful estimates, from three elevenths to two sevenths of the height of the pupil. The width of the seat should be about three fourths of the length of the upper leg, or one fifth of the height of the pupil. It should be sloped gently backward, and its edge should be rounded. The back rest should be such as to give support to the back under the shoulders and above the hip bones. The distance from the front edge of the seat to a perpendicular dropped from the rear edge of the desk should be for writing a minus distance; that is, the edge of the desk should overlap the seat from one to two inches. For all other purposes the distance should be zero, but never plus. These conditions imply that either the top of the desk or the seat must be movable. The difference or perpendicular distance from the seat to the upper edge of the desk should be such that the pupil sitting erect can easily place his forearms upon the desk without changing the natural

Desirable  
features of  
desks and  
seats.

Height of  
desks and  
size of  
seats.

The dis-  
tance from  
seat to  
desk.

Relative  
height of  
desk and  
seat.

\* For the detailed records of investigations and conclusions of specialists see (12, p. 55; 1 p. 128; 2, p. 270).

position of the shoulders. Some authorities say that this distance should be about one sixth the height of the pupil. The slope of the desk should vary from that of about  $30^{\circ}$  for writing to that of about  $45^{\circ}$  for reading, which again implies a movable desk top.

The desirability of having some arrangement by which pupils may easily get into and out of their seats and stand in recitation is an added reason for providing more room between

the desk and seat than is permitted by the above-mentioned measurements. Many inventions have been made to supply these needs, as well as to secure a varying slope of the desk top;\* but, apart from the common hinged seat, few of them have as yet been adopted by American school furniture makers. Where the small seat is used there is less need of movable desk tops and seats than where the seat is long and is of uniform width, as it is generally in Germany. The minute studies from which the above general statements are derived were made with reference mainly to stationary desks and seats. A large number of measurements and estimates have been made, so as to ascertain the average size of the bodies of pupils for pupils of a given age. While the tables embodying these estimates are of great value to school authorities who desire to know the approximate sizes of desks and seats needed, they are of comparatively little value to those who secure for the schools adjustable seats and desks. Such furniture will come more and more into use, in spite of its increased cost over the stationary kind, as the necessity of

a constant adjustment of the school seat and desk to the corresponding measurements of the child's body becomes obvious. While the measurements and directions above given are of special value to authorities who are selecting and putting down stationary desks and seats, they will also be found useful to those who are setting up and adapting to pupils the adjustable desks and seats. Some of these seats are constructed with reference to changing not only the height of the desks and seats but also the slope of the desk top.

Adjustable seats and desks.

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\* A full description of these inventions in Germany is given by Burgerstein (12, p. 75) and by Kotelmann (1, p. 147). An interesting essay upon school seats, by Drs. Bradford and Stone, is printed in (13, p. 611).

Of school furniture, other than desks and seats, which should be selected on hygienic grounds, may be mentioned movable blackboards, crayons, erasers, outline maps and drinking cups.

The material to be preferred for a movable blackboard is natural slate, both because it can be erased with a moist cloth or eraser, and thus reduce the amount of dust raised, and also because it has not a shiny surface. Artificial ap-  
 plications that have not these objectionable features may be used. The dustless crayons are likely to  
 raise less dust than the ordinary crayons, and for that reason are to be preferred; but when they are so hard as to give faint lines, they should be used sparingly. Crayon holders, especially for colored crayons, are recommended.

Movable  
black-  
board and  
crayons.

Outline maps should be selected that have clearly drawn lines, and should be placed for use upon map stands in a good light and near to the pupils using them. Care also should be taken to select only those books for pupils' use  
 which have clear and well-defined print, and whose  
 pages have a plain, dull surface. This is especially important in the selection of text-books, or those books which are in constant use by the pupils. The best authorities advise for young children books printed from "Pica" or "Great Primer" type, and condemn, for pupils of any grade, the use of books printed from type smaller than "Long Primer."

Charts and  
text-books.

The following are illustrations of these types:—

Long Primer.

Pica.

Great Primer.

Much attention has been given of late to the dangers of the common use of drinking cups in school. To avoid all possible dangers of infection, either individual cups or the drinking fountain should be used. By the latter plan, pupils  
 are enabled to drink from a constantly flowing jet  
 of water rising three or four inches, thus avoiding  
 all possible danger of contamination. The fountains are used with success in Boston (Roxbury), Mass., Webster, Mass., Plainfield, N. J., Asbury Park, N. J., and Westfield, N. J.

The com-  
mon drink-  
ing cup.

The common use of penholders and pencils by the pupils, though less objectionable than the common use of drinking cups, is nevertheless to be avoided as far as possible. Each pupil of the schools of Springfield, Mass., is provided with his own penholder and pencil at the beginning of the year, as well as with a drinking cup.

The common use of penholders and pencils.

### *The Care of School Buildings and Appliances.*

What has been said of the importance, from a hygienic point of view, of care in connection with ventilation, may be said with equal force of the school building in general. It should not be necessary to say that the schoolrooms should be kept as free from dirt and dust as good homes, and yet the fact is quite forgotten by many persons who have the management of schools.

In the first place, the thorough cleaning which every good housekeeper deems necessary for her home at least once a year should be done for the schoolhouse. A few days before the end of the summer vacation the floors should be thoroughly scrubbed and all other parts should be washed and wiped. The windows should be washed frequently.\* During the school year the floors in all parts should be swept, or, if oiled, carefully wiped three times a week, the more exposed parts being brushed up daily. The rooms should be carefully dusted daily with a damp cloth. The sweeping and dusting should be done at such a time and in such a way as to leave no floating dust in the room while the school is in session. The best time and way of sweeping is after school at night, with open windows, the floors being sprinkled with damp sawdust. One method of allaying the dust in schoolrooms, to which much attention has been given recently, is that of oiling the floors. If the material is wisely selected and carefully put on, great good from a sanitary point of view will result. But the floors so treated must be wiped off frequently, to accomplish fully the desired results. Annoyance from oiled floors on account of their soiling dresses

The washing, sweeping and dusting of school-houses.

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\* Eulenberg and Bach (11, p. 544) say that the windows should be washed every month. When windows are washed, as they frequently are, only in July, they are likely to become dusty before the school begins in September. The better time for washing the windows is September or October.

will be slight, if too much oil is not used and the floor is frequently cleaned.\*

The sanitaries need careful attention daily. Water-closets and urinals should be thoroughly flushed two or three times a day, and all traces of uncleanness be wiped away. Occasionally simple disinfectants and deodorizers, such as superphosphate and lime, should be sprinkled in the vaults and about the urinals; but it should be understood that nothing of this kind can take the place of a liberal application of water. In places where there is no plumbing, corrosive sublimate, bleaching powder or copperas may be used as a deodorizer.

The care of  
water-  
closets and  
urinals.

If the sanitary drinking fountain, such as has been referred to, is not used, or if individual drinking cups are not provided, the cups used for drinking should be washed frequently with hot water and soap. If the building is supplied with public water, the cups should stand under running water all the time during school hours. In some quarters the custom has prevailed of using each night sulpho-naphthol in disinfecting the drinking cups. It has also been used about doors, hand rails and sanitararies.

Care of  
drinking  
cups.

One possible cause of infection is the common use of pencils, penholders, erasers, etc. This danger has been prevented to a large extent in Everett, Mass., by a simple means of disinfection devised by Dr. Whitehill of that city. It is thus described by Superintendent Condon:—

Disinfection  
apparatus.

The danger of contagion through the distribution of pencils, penholders, drawing models and other articles which are used by several pupils, has long been recognized by the medical profession. We believe it has been left for a member of your board, Dr. G. E. Whitehill, to devise a simple, inexpensive and yet effective piece of apparatus for thoroughly disinfecting supplies of this kind. The apparatus consists of a tin chest, with a tightly fitting cover, in size 12 by 12 by 15 inches. In this is room for trays 1 inch in depth, with wooden sides, and the bottom covered with wire netting of a

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\* The desirability of keeping the schoolrooms free from dust, especially those rooms in which gymnastic exercises are given, is shown by a scientific treatment of the dangers of breathing dust, written by Dr. Schmidt and quoted by Dr. Young (2, p. 225).

small mesh. The bottom tray rests upon a narrow shelf at each end, having a space  $2\frac{1}{2}$  inches below the lowest tray. The other trays rest upon each other. In the free space at the bottom is kept a sponge saturated with formaldehyde. Each class room is supplied with a tray, and as the pencils, penholders, erasers or other articles are collected, they are placed in this tray, to be left over night in the tin chest. The formaline gas evaporates and comes in contact with all the articles in the different trays, destroying any germs which may have adhered to them.

The danger from infection is partially met in the recommendations of the Marlborough, Mass., board of health: (1) That the teachers in the schools shall require each pupil to keep and use his own individual books and school apparatus, desk and chair in the schoolroom, and hook for outside clothing; (2) that only such apparatus be used in the schools as can be thoroughly cleansed and disinfected by being dipped in boiling water; (3) that the drinking dippers in the school buildings be boiled as often as once a week.

Next in importance to providing windows and shades of the right kind in schoolrooms, is the proper care of them. The windows should be kept clean by frequent washing and wiping, and the curtains should be so managed that all the pupils may receive the most and best light that the windows will afford. It is safe to say that in a majority of rooms whose windows are furnished with curtains the latter injunction is not followed. The curtains generally are drawn from the top, and in far too many rooms they cover during the entire day — and sometimes during cloudy days — the upper third or half of every window. Sometimes also the curtains upon windows placed in front of the pupils are not drawn, while much work is required to be copied from blackboards situated between two windows. There can be little

wonder at the large number of pupils in the middle and higher grades having diseased eyes, when the prevailing conditions and practice in the schools are considered. In almost every one of the scores of investigations which have been made within ten years in Europe and America the results were most alarming, — from twenty to



sixty per cent. of children in the elementary schools having defective sight, and even a higher percentage in high schools.\* Some investigations have shown that, while many cases of impaired sight may be traced to inheritance, a large percentage of cases is directly due to an overstrain of the eyes in school.† Teachers should constantly guard themselves against requiring written work to be done during cloudy days, especially during the last hour of the day. Upon very dark days very little reading or study should be required. In schools which have more than one grade there should be at such times oral and general exercises for all the pupils.

Exercises  
on dark  
days.

In no respect are complaints of neglect more frequently heard from superintendents than in connection with the care of the heating and ventilating apparatus. In rooms heated by stoves it is not uncommon to find the temperature below 60° during the first hour of the morning session, because the fire was built late, and 75° or 80° later in the day. The all too small aperture for letting out the impure air is frequently closed by janitors, and allowed to remain closed by careless teachers. Even the best apparatus for heating and ventilation does not escape the results of carelessness and ignorance. The stack heater for the exhaust flue frequently remains unused for days and weeks together, simply to save coal or kerosene, or possibly a little trouble. Janitors are inclined to close the fresh-air inlets in cold weather, and permit air to enter from the basement, with the result of having the air circulate through the schoolrooms and water-closets in common. So many and various are the ways of neglecting the ventilating apparatus, that nothing short of a complete automatic attachment will suffice to keep the room unfaillingly at the desired temperature of 68°.

The care  
of the  
heating and  
ventilating  
apparatus.

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\* For details of some investigations, see (3, p. 151; 1, p. 241; 2, p. 100; 12, p. 353; 14, p. 7).

† Dr. Kotelmann cites several instances (1, p. 112) in which great differences in the soundness of pupils' eyes were shown to be due to differences of school conditions and requirements. In one case the percentage of myopia had in eight years decreased three to fifty per cent. in the various rooms of a high school whose hygienic conditions had been improved.

*Composition and Adjustment of the School Program.*

Thus far, among hygienic conditions for which school authorities are alone responsible, I have referred only to those of an external kind. Other conditions of the same class affecting the health of pupils are those which relate to the composition and adjustment of the school program. These will be treated briefly under the following heads: (1) course of studies, (2) daily program and instruction, (3) intermissions, (4) school sessions, (5) length of recitation, and (6) amount of work required of pupils.

*Course of Studies.* — It is easy enough to say that the school program should have such an extent, variety and arrangement of studies as will conduce to the physical as well as mental

**Difficulty of** well-being of all the pupils; to make and apply  
**arranging** such a program is quite a different matter. The  
**a course** difficulty of arranging a course of studies suited to  
**of studies** all is realized when it is known that all pupils, the  
**suited to all.**

bright and the dull, the strong and the weak, should have enough provided for them fully to tax their powers without injury either to the body or to the mind. The task, however, of laying out a general course of studies is considerably lessened if it is kept in mind that the adaptation of subjects to

**An elastic** pupils lies largely with the teacher. To give her  
**course** sufficient freedom in this regard, the course which  
**needed.** she has as a guide must be general and elastic; that

is, it must be such that the work required of pupils will be subject to conditions of temperament, health and outside demands, as well as to those of intellectual ability. So important is this principle of adaptation, and such is the difference in pupils, that, if the requirements of any course of studies prevent one

**The adapta-** pupil from doing much more than what another  
**tion of work** pupil of the same class will be able to do, or if they  
**to the** force one pupil to do much less than what another  
**needs of** pupil of the same class ought to do, they are not  
**individual** what they should be. Again, the importance of  
**pupils.**

protecting the children during the transition period from the kindergarten to the school or from the home to the school should be recognized by giving a large proportion of observa-

tion, manual and physical exercises during the first year or two of the course.\*

It is well known that it is not so much the amount of work that one has to do as the worry occasioned in doing it that causes physical and mental collapse. And so it is not so much the number of studies, or even the amount of work given to them, as the strain of anxiety in preparing for examinations, and fear of not being promoted, that most injures the pupils. So far as the course of studies has to do with these occasions of exhaustion and ill health, it should be made so as to protect both teachers and pupils from possible excesses or mistakes.†

Anxiety attending examinations and promotions.

In the interests of health, there should be a liberal allowance of time provided in the course of studies for physical and manual exercises ‡ and for instruction in physiology and hygiene. The amount to be done in these subjects and the place in the program they should take will be referred to later.

Allowance of time for physical training.

The course of studies of the larger cities should make provision for all defective or weak-minded children that are not provided for by the State, giving the utmost freedom and opportunity to teachers of small classes to adapt the work to the needs and capacity of individual pupils. Of this class of children Dr. Lincoln (16, p. 83) writes: "Outside of the class returned in statistics as feeble-minded, there exists a much larger class (perhaps five in a thousand) of 'backward' children, a type with which all primary teachers are familiar, who are so deficient as to be incapable of profiting by ordinary school methods. They constitute a distinct type, differing from the grosser types only in degree of defect; they display all the cardinal features of imbecility in a lesser degree. Few classes are without some specimen, hopeless

Treatment of defectives.

Special classes for weak-minded children.

\* The reasons for limiting the formal work of the first year in school and a detailed plan of exercises for that year are given in the sixty-second annual report of the Massachusetts Board of Education, pp. 409-413.

† Matters of grading and promotions of pupils are discussed in the sixty-first report of the Massachusetts Board of Education, pp. 297-314; also in (13, pp. 303-356).

‡ For a careful estimate of the proper proportion of time which should be given to drawing, manual training and singing, see pp. 457-479 of the sixtieth report of the Massachusetts Board of Education.

under existing conditions, yet fondled and defended by parental love, which can see no inferiority in its own offspring. A movement for the education of these children in special classes under trained inspectors has just begun in the United States, which up to the present includes the cities of Providence, Worcester, Springfield, Boston, Philadelphia and Chicago." The children here referred to belong to what has been called the "abnormally deficient" class, — a class separate and distinct from the class consisting of merely dull children of normal type. These children should also have special provision made for them, not only on account of the better progress they will make in their studies, but also on account of the desirability of preventing tendencies to moral and physical degeneracy. In many places, at present, small ungraded classes are formed for the benefit of children who are slow, or who for other reasons need individual attention. Such classes generally consist of not more than twenty pupils, and the work done is mainly with individual pupils. Transfers are constantly made to and from the class, as occasion demands.

*Daily Program and Instruction.* — There is a feeling abroad, occasionally expressed by physicians and newspaper writers, that there is "over-pressure" in the schools to such an extent that many children are falling by the way and made invalids for life. There is another feeling abroad, expressed quite frequently by opponents of the "new education," that teachers are doing too much for their pupils, and are thereby helping to create a race of degenerates, — "soft pedagogics" is the term sometimes given to designate the process. Widely divergent as are these criticisms of present practice in the schools, there is perhaps enough truth in both charges to put teachers on their guard in respect to the demands they make upon their pupils. Viewing the matter solely from the standpoint of health, we may agree that hard intellectual work of *the right kind*, done within proper limits of time, can in no way be injurious to children. It must be as healthful for them to exercise the brain actively as it is for them to exercise the legs actively. It is not hard work that is harmful or repugnant to

Special  
treatment  
of dull  
children.

Opinions  
relating  
to "over-  
pressure."

Hard intel-  
lectual  
work no  
injury.

the normal child so much as work which is not suited to his needs and powers. Of course a discrimination must be made between the natural tendencies of the child and those tendencies which have been imposed upon him. The former may lead and point the way of the best training, while the latter may indicate the course to be resisted.

What is needed for health's sake is not necessarily to lessen the work of children, but to lead them to work in such a way and at such times that the largest results in mental strength and alertness will be gained with the least fatigue. The problem not less work but less fatigue. This is not done by carrying on the same subject or kind of work too long at a time, or by giving work that is uninteresting. The duration of effort is not always the measure of fatigue attending it, and neither time nor fatigue necessarily determines the amount or intensity of effort exerted. There is some study which cheers and invigorates, while there is other study which palls upon the mind and wearies it to the point of stagnation. No one will say that the former study, although alert and active, is nearly as harmful physically as the latter. The two states of mind needed for the physical as well as for the mental well-being of pupils are interest and freshness; the former depending largely upon the subject and the way it is presented, and the latter upon the times in which the recitation or study is carried on. Interest and freshness necessary to best work.

One means of determining the proper place and order of recitations in the day's program is the condition of the pupils in respect to fatigue. While work of any kind must be accompanied by fatigue, and while fatigue in itself is not harmful (17, p. 144), it becomes harmful when long-continued or heavy demands are made upon the mind which lead to exhaustion and disease. Both experience and fatigue studies have shown that the branches of study which most tax the mind should be given in the early part of the day, while the children's minds are rested, and that those which make the least demands should be given later. The subjects upon good authority which are most fatiguing are mathematics and foreign languages, and those which are least fatiguing are singing and drawing (18, p. 81). If the school day of five Fatigue harmful when long continued.

hours is divided into two sessions, it would seem best to have a three-hours session in the forenoon, occupied by recitations and study that are most taxing to the pupils; and a two-hours session in the afternoon, occupied by singing, games and manual exercises. What has been said of the desirability of placing the most taxing recitations early in the day will apply to written examinations which have been found to be very fatiguing.\*

*Intermissions.* — Results of investigations have shown that the time of the short recess and even that of the long noon intermission is not long enough fully to rest the pupils; that is, at the beginning of the period after the intermission the available strength for mental work is not as great as at the beginning of the morning session. The extended scientific observations of Burgerstein in Germany (12, p. 237) and of Key in Sweden (1, p. 227) all go to prove that a liberal allowance should be made for intermissions during the school day, — an allowance even greater than is made in Germany,† and far greater than is made in any of our American schools. Thus Kraeplin (1, p. 194) says that recesses should be longer than they generally are, and should follow one another at shorter intervals; and Kotelmann (1, p. 195) approves the program proposed by Hakonson-Hansens, in which, in a six-hour school day, from 8 A.M. to 2 P.M., there are six intermissions, — five of ten minutes each and one of twenty minutes.

These recommendations, based upon the most careful investigations and the almost universal practice of German schools, may well lead us to question the wisdom of our school authorities in limiting the time of recesses as much as they do. Especially should they attract the attention of those who are inclined to abolish the recess altogether, or to substitute, for the games of the old-fashioned recess, gymnastic exercises. More will be said upon the subject, when the general hygienic treatment of pupils is discussed.

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\* Dr. Newsholme and others (28, p. 66) would diminish fatigue by change of subjects; alternating language or history with mathematics, and mentally fatiguing subjects with penmanship or manual training.

† In Prussian secondary schools the total time given to intermissions daily must be not less than forty and not more than forty-five minutes. In Bavaria the same class of schools are obliged to have a recess of ten minutes every hour.

*School Sessions.* — As to the desirability of having two school sessions or one in the day, there is, as there well may be, a difference of opinion, for there are good reasons as well as objections that may be urged upon either side of the question. The arguments usually given in favor of the single session are: (1) the shortness of the days in winter, and consequent limited period of daylight; (2) the saving of an extra walk to and from school; (3) the greater opportunity for needed recreation in the way of games, excursions, etc. The arguments opposed to the single session and in favor of the double one are: (1) There is less danger from over-exhaustion, when there is an entire break of one or two hours in the work of the day, than when the work is continuous or when it is interrupted by only a recess of twenty or thirty minutes; (2) there is more likelihood of a good breakfast and dinner being eaten under the two-session plan than in the one. If the above-named arguments fairly represent all that can be said upon both sides, it will be admitted that for hygienic reasons the two sessions should be preferred. This, however, does not in any way imply that the single session may not be so managed as to conform thoroughly to the best hygienic rules; as, for instance, if pauses of ten minutes are given for recreation at the close of every recitation and study period, and if hot soup or some other nutritious food is supplied the pupils in a half-hour intermission.

Arguments  
for and  
against  
the single  
session.

*Length of Recitation.* — There is substantial agreement among specialists as to the proper length of the recitation and study period. This agreement is summarized in the following statement, made by Dr. Rowe (18, p. 167): “The longest period which a child of five to seven years should be expected to have for a given exercise should not exceed fifteen minutes. For a child of seven to ten years, it should not exceed twenty minutes; for a child from ten to twelve, not over twenty-five; and from twelve to sixteen, not more than thirty. These figures have been approved both by experiment and experience. They are maxima for all confining exercises.”

Periods of  
study and  
recitation.

*Amount of Work required of Pupils.* — European and American standards of what should be required of pupils differ con-

siderably both in theory and in practice. Dr. Kotelmann points out (1, p. 212) that in the Prussian and Bavarian secondary schools from six to twelve hours a week of home study is required from pupils of the lower classes, and from twelve to eighteen hours of such study from pupils of the upper classes. Some of the secondary schools of other parts of Germany make even more severe requirements than these. The requirements of the people's schools are doubtless less than are those of the secondary schools; but it is safe to assume that the older pupils of the former schools have not less than twelve hours of home work weekly. When it is considered that the number of hours a week in which the schools are in session in January is at least twenty per cent. more than our schools require, we can appreciate the enormous pressure that is put upon the pupils there. The specialists in hygiene recommend that the requirements of home study be lessened, as is shown by the following tables, the first being the recommendations of the expert commission for the secondary schools of Elsass-Lothringen (1, p. 213), and the second the recommendations of Dr. Key, as quoted by Dr. Burgerstein (12, p. 289):—

TABLE I. — *Showing the maximum hours per week recommended for school instruction and home study by the expert commission for the secondary schools of Elsass-Lothringen.*

AGE.	Class.	SCHOOL INSTRUCTION.				Home work.
		Studies.	Singing.	Gymnastics.	Total.	
7, 8, . . . .	IX., VIII.	18	$\frac{2}{2}$	$\frac{4}{2} - \frac{5}{2}$	21 — 21½	$\frac{6}{2}$
9, . . . .	VII.	20	$\frac{2}{2}$	$\frac{4}{2} - \frac{5}{2}$	23 — 23½	5 — 6
10, 11, . . .	VI., V.	24	2	2 — 3	28 — 29	8
12, 13, 14, . . .	IV., III.	26	2	2	30	12
15, 16, 17, 18, . .	II., I.	30	2	2	34	12 — 18



TABLE II. — *Showing the number of hours per week recommended by Dr. Key for school instruction and home study.*

AGE.	WHOLE NUMBER OF HOURS' WORK REQUIRED WEEKLY, INCLUDING SINGING AND GYMNASTICS.		NUMBER OF HOURS WEEKLY REQUIRED FOR —		NUMBER OF HOURS OF HOME STUDY —	
	In the school and home.	In the school alone.	Singing.	Gymnastics.	Weekly.	Daily.
7, . . .	12 — 18	12 — 18	1	2	-	-
8, . . .	18 — 24	15 — 21	1	2	3	$\frac{1}{2}$
9, . . .	24 — 30	18 — 24	1	3	6	1
10, 11, . .	36	29	2	3	7	$1\frac{1}{6}$
12, 13, . .	42	32	2	3	10	$1\frac{2}{3}$
14, . . .	48	35	2	3	13	$2\frac{1}{6}$
15, 16, . .	51	35	2	3	16	$2\frac{2}{3}$
17, 18, . .	54	35	2	3	19	$3\frac{1}{6}$

American practice varies greatly, but it is doubtful if the requirements of any school are as great as those recommended above. Practice in the best schools at present seems to favor a short divided period of three hours' attendance for the younger pupils, and an attendance of five or five and one half hours for the older pupils. This amount of time spent in school, with a well-arranged program, having the proper number of manual and physical exercises and recesses, ought not to be harmful to any well child. But the proper length of a school day cannot be considered apart from the requirements of home study. The time given above ought to be all the time needed for study by pupils below the seventh grade, upon the assumption that children are admitted to school at five years of age, and that there are nine grades below the high school. The maximum amount of home study for pupils of the seventh grade might be half an hour daily, and for pupils of the eighth and ninth grades from one hour to one and one half hours daily. For pupils of the high school the maximum amount of home study daily might be extended to two and three hours. These figures are given upon the assumption that no study of any kind shall be

Require-  
ments of  
study in  
America.

The  
maximum  
amount of  
home study  
which  
should be  
required.

required or permitted at recess or after school. The following table embodies the suggestions which I have made as to a proper amount of school and home study. It will be seen that the requirements are far less severe than those recommended by Dr. Key, but it is believed that they more nearly fit American conditions than his do.

*School and home study.*

GRADE OR YEAR IN SCHOOL.	NUMBER OF HOURS WEEKLY GIVEN TO—					
	School attendance (including recesses).	Recesses and gymnastics.	Singing.	Recitation and study in school ( <i>not</i> including gymnastics and singing).	STUDY AT HOME.	
					Minimum.	Maximum.
1, . . . .	15	2	1	11½	-	-
2, . . . .	20	2	1	15½	-	-
3, . . . .	27½	2½	1	22	-	-
4, . . . .	27½	2½	1	22	-	-
5, . . . .	27½	2½	1	22	-	-
6, . . . .	27½	2½	1	22	-	-
7, . . . .	27½	2½	1	22	1¼	2½
8, . . . .	27½	2½	1	22	2½	5
9, . . . .	27½	2½	1	22	5	7½
10, . . . .	25	2	1	20	7½	10
11, . . . .	25	2	1	20	10	12½
12, . . . .	25	2	1	20	10	15
13, . . . .	25	2	1	20	10	15

The recommendations contained in the above table are made with confidence, since they agree with the practice of the most carefully managed American schools. Of course, it is understood that the amount of time indicated for home study is intended only for those pupils who are well. The time given is subject to change for those who for any reason cannot do the full work of the school without impairment of health. If children have to practice upon the piano one or two hours daily, or if by fulfilment of social functions they are unable to meet all the requirements of the school, they should stand precisely where the weak-bodied pupils do in relation to the school. Neither class is to

The re-  
quirements  
to meet  
existing  
conditions.

blame for the obstructing conditions, and neither class should be made to suffer by too great exactions. But it should be understood that under such circumstances the work of a class or year is incomplete, and must be made up before full credit is given.

In one respect the recommendations of requirements above given differ from the requirements usually made, and that is in reference to the amount of home study. Two standards are set, one for the least amount of time which should be spent in study, and one for the greatest amount of time so spent. These separate standards of requirements are fixed in the belief that the bodily as well as the intellectual welfare of pupils is enhanced by an accommodation of demands to ability. The ordinary practice is to state one period of time for home study, which is supposed to be the time suited to the "average pupil." The result is that some of the pupils far exceed the amount named, while others stop far short of it. Both classes of pupils may be injured, one from doing too much and the other from doing too little. The placing of a minimum for home study means that the bright pupils must not be deprived of the advantage of a certain amount of strenuous effort. The maximum limit is placed for the benefit of that class of pupils—generally girls—who conscientiously do more than is required of them, and who, for the sake of their health, need the restraint of a fixed standard of time for study, beyond which they shall not be permitted to go.

Minimum  
and maxi-  
mum re-  
quirements  
to be made.

#### OUTSIDE CONDITIONS.

In tracing the causes of ill health among school children, no one will deny that there are likely to be some causes for which the school authorities ought not to be held responsible. When we consider the close connection between one's state of health and one's habits in respect to eating and sleeping, and when, further, we consider the extent of control which the parents have or ought to have over their children in these respects, we cannot leave the influences of the home out of consideration in any treatment of the health of school children. This consideration is all the more imperative on account of the fact that the school must take the child as it

Private les-  
sons and  
social  
diversions.

finds him, and must in the interests of the child conform to all the conditions imposed upon him from without. If his strength is given largely to private lessons or social diversions, or if his system is weakened by insufficient sleep or nourishment, there must be a certain degree of conformity of opportunity and demands to his impaired powers. The conditions cannot be fully met by the teacher without a knowledge of the child's impaired abilities and the occasions of them. A wise conformity to conditions means more than a mere acceptance of them and adaptation of the school program to fit them; it involves an effort on the part of the teacher to remedy as far as possible the faults which obstruct the work of the school.

The causes of physical and mental weakness for which parents and pupils are responsible have already been hinted at. They are want of attention to diet and sleep, social diversions, uncleanliness and other bad personal habits. It is vain to suppose that these obstructive conditions can be fully controlled by the teacher, or even appreciably so, in a large number of cases. It is hoped, however, that every teacher will make an effort to urge upon parents and pupils alike the importance (1) of a large amount of restful sleep every night,\* (2) of a sufficient diet of nutritious food taken at proper times,† (3) of abundant recreations that will invigorate and refresh both body and mind, (4) of a careful

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\* Dr. Key, who has given much attention to the subject, says that children from seven to nine years of age need eleven hours of sleep daily, that children from ten to thirteen years of age need ten or eleven hours, and that children beyond this age up to eighteen need from eight and one half to nine and one half hours (12, p. 289). He found in his investigations in Stockholm that those pupils who had an insufficient amount of sleep had from five to eight per cent. more sickness than their schoolmates who had sufficient sleep. Dr. Dukes (23, p. 124) would allow the following number of hours per night for sleep: children five years of age, thirteen and one half; six, thirteen; seven, twelve and one half; eight, twelve; nine, eleven and one half; ten, eleven; eleven, ten and one half; twelve and thirteen, ten; fourteen, nine and one half; fifteen and sixteen, nine; from seventeen to nineteen, eight and one half.

† The attention of parents and pupils should be especially called to the importance of eating a substantial breakfast, and of taking plenty of time for it. This advice is particularly needed for pupils of high schools, who frequently are found attending a five-hours school session after a hasty and insufficient breakfast. School luncheons should also be made a subject of careful attention. In many places food of a very nutritious kind and at little cost is provided at recess by the school authorities or by some one authorized by them. Dr. Newsholme (28, p. 96) recommends the giving of penny dinners, such as are given in some of the London Board Schools. He also recommends giving to each child in the poorer districts a mug of milk and slice of bread before the morning's work begins.

attention to cleanliness by frequently brushing the teeth and bathing the body, and (5) of pure personal habits which will in no way injure the body or debase the mind.

To be successful in checking the evils of bad personal habits among boys, such as the use of tobacco and secret vice, demands the utmost efforts of teachers, who first of all must realize their prevalence and the enormous injury done by them to the body and mind. While the chief reliance for success must be made upon constructive lines, such as giving the pupils instruction in physiology, and leading them into good habits of industry, the preventive and personal means must not be neglected, in which courage and tact will be required. For the fullest success in many cases, the co-operation of parents will be needed.

Bad personal habits among boys.

Dr. Burgerstein (21, p. 257) urges the great need of a systematic effort to spread hygienic knowledge among the people. The means recommended are as follows: distribution of brief tracts, courses in normal schools and secondary schools, university extension lectures, associations, popular lectures, reading rooms, portable exhibits.

Instruction for the people in hygiene.

Some superintendents have found it useful to send to parents at the beginning of the year a printed letter or circular, giving a few suggestions relating to the habits and health of the children. An example of what is needful for parents to know is shown in the following letter, prepared by Dr. Wm. H. Maxwell, and sent to the parents of all the pupils in Brooklyn when he was superintendent of the schools of that city. It follows, in the same circular, a letter addressed to teachers respecting the requirements they should make of the pupils.

A circular letter to parents concerning the habits and health of children.

#### *To Parents.*

1. The health of your children is paramount to every other consideration. When children, particularly girls, between the ages of ten and seventeen, exhibit evidence of nervous disorder, such as twitching of the face and hands, or extreme irritability, it is a sure sign either that the school work is too severe, or that they are not living under proper hygienic conditions, or both. In all such cases school work should be either materially lessened or be intermitted until there is a restoration to health.

2. In the majority of cases, to conquer the difficulties of arithmetic and grammar or the intricacies of a new language is harder work for the child than are, for the business or professional man, his everyday avocations. Hence, children need constant care, sympathy and encouragement.

3. Children should spend not less than two hours every day in the open air, and, if possible, should engage in games requiring both skill and activity.

4. Children should spend at least twenty minutes every day in practising at home the gymnastic exercises they learn at school.

5. Children should not be permitted to attend social parties or public meetings or entertainments on evenings preceding school days.

6. Children should spend in sleep not less than nine, and, if possible, ten, hours out of every twenty-four.

7. The following practices should be prohibited, as being injurious to health: study before partaking of food in the morning; the rapid reading of lessons just before the beginning of a school session; study during the noon intermission; study immediately after the close of school, before mind and body have been rested by play or other suitable change of occupation; study immediately after eating a hearty meal.

8. When children study or read either by sunlight or by artificial light, care should be taken that the light is sufficient, and that it falls upon the page from the left.

9. Children should have fixed hours for study, never exceeding the time specified in the rule of the Board of Education, and nothing should be permitted to interfere with these hours of study.

10. When parents find that their children, after conscientious effort, cannot accomplish the work assigned by the teacher in the time specified in the rule, they should at once communicate the fact to the principal of the school, and ask diminution of the tasks assigned.

11. Parents should never urge children to make extra efforts to obtain promotion, nor show annoyance if they fail to obtain promotion. What children need for intellectual and moral progress is systematic, not spasmodic, work. If, for any good reason, a child is not promoted or graduated at the end of a term, he should not be reprimanded, but encouraged to try again. Nor should parents, by finding fault with the teacher, weaken her influence for good.

12. Cigarette smoking by growing boys is dangerous alike to the physical, the intellectual and the moral well-being. Parents cannot be too vigilant in preventing their sons, who have not yet reached maturity, from using tobacco in any form, and particularly in that of the cigarette.

## INSPECTION AND SUPERVISION.

In what has been said thus far it has been assumed that all the circumstances relating to the health of pupils should be known by the school officials, and that no adverse conditions be allowed to exist. The hygienic conditions of the school relate, as we have seen, to the location, construction and plan of buildings, school equipment, and the composition and adjustment of the school program. The effects of adverse conditions must also be recognized before they can be properly prevented or treated. It is hardly supposable that all these circumstances and the means of correction can be fully known and understood by the teachers in charge. It is desirable, therefore, that they shall have such professional assistance or advice as will enable them to correct existing faults and to prevent disease and contagion.

The circumstances concerning which advice and assistance will be most needed are those relating to the ventilation and lighting of the schoolroom, the desks and seats, the amount and kind of mental and physical exercises needed to keep the pupils in good physical health, the detection of incipient forms of disease, and the method of treating each pupil not in a normal condition of body or mind.

The most apparent need of advice is in the detection of the first stages of contagious diseases, such as diphtheria, scarlet-fever and measles. The laws of Massachusetts provide for the careful exclusion of all pupils from school who are sick with or who have been exposed to infectious diseases ; \* but a careful observance of this law cannot prevent the spread of disease which appears in such incipient form as to escape the detection of parents and teachers. What is needed, for the sake of the community as well as of the persons afflicted, is some form of inspection which will keep from the school all pupils from whom there is any danger of contagion. This is accomplished to a very satisfactory degree in so-called medical inspection, which is carried on in New York, Boston, Cambridge and several other American cities.

Profes-  
sional  
advice and  
assistance.

Medical  
inspection  
of schools.

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\* Chapter 496, section 11, Acts of 1898.

The plan which has been followed in Boston for the past six years is as follows: By a special arrangement with the school committee, inspectors are appointed by the board of health to visit each day all the schools soon after the opening of the morning session. If any of the children appear not well, they are examined by the inspector; and if he finds any child with symptoms of an infectious disease, he exercises his authority as agent of the board of health and orders the child to be sent home. He at once reports the case to the board of health, and follows it up, seeing to it that the child is either properly isolated or sent to the hospital. Later, he makes another visit, to see if all danger of infection has ceased.

If a child is found to be ill, but without symptoms of an infectious disease, "the teacher is advised to send the child home, with a message, written or oral, as may seem best, stating what the trouble may be, and suggesting, if medical care seems to be needed, that the family physician be called." Further particulars and results of the plan are given in Superintendent Seaver's report for March, 1900 (19, p. 38).<sup>\*</sup> It is entirely feasible for any city or town to follow the plan above indicated. Some idea of the cost will be gained from the following statement of Dr. Durgin, chairman of the Boston board of health (21, p. 1500): "The board of health divided the city into fifty districts, giving an average of about four schoolhouses and 1,400 pupils to each district. No difficulty was experienced in finding well-qualified and discreet physicians who would undertake the duties prescribed, and the board secured and appointed one physician for each district, with a salary of two hundred dollars a year."

The laws of the State of New Jersey (chapter 96, article XXX., of the laws of 1900) provide that any local board of education may employ a competent physician, who shall visit the schools at stated times and examine pupils referred to him by the teachers, and "at least once during each school year examine every pupil, to

<sup>\*</sup> Plans of general medical inspection are contained in the report of the board of school visitors, Hartford, Conn., March 31, 1900; also in (5, p. 17; 9, p. 54; 21, p. 1489). The last-named reference has accounts of inspection plans and results in Massachusetts, New York, Philadelphia, Berlin and Paris.



learn whether any physical defect exists, and keep a record from year to year of the growth and development of such pupil, which record shall be the property of the board of education, and shall be delivered by said medical inspector to his successor in office." The law further provides that he "shall lecture before the teachers at such times as may be designated by the board of education, instructing them concerning the methods employed to detect the first signs of communicable disease, and the recognized measures for the promotion of health and prevention of disease."

The above law provides for one form of medical inspection which has been adopted with success in several cities and towns, and that is inspection of the sight and hearing of pupils. As would be expected, the results of investigations differ as to the percentage of pupils having defective sight and hearing, depending upon the age of pupils, conditions under which pupils have used their eyes, and the character of the examination. Tests recently made in the suburban towns of Milton, Wellesley and Brookline show that there are under the most favorable circumstances a large number of pupils who are suffering from defective sight.

In Milton the eyes of 709 children were examined by an oculist, Dr. L. W. Mansur of Boston, for the purpose of ascertaining what pupils needed glasses. As a result of the examination, 195 pupils, or a little less than one third of the whole number, were recommended for further examination for glasses, 13 of the pupils having myopia and 108 astigmatism.

In Wellesley the examination covered a period of three and a half months, the oculist, Dr. David W. Wells of Boston, devoting about eight hours a week, and an assistant working all the time the schools were in session. The purpose of the examination was to ascertain the condition of the sight and hearing of each pupil, and to point out those who needed treatment. The following table gives the result of the examination : —

Inspection  
of sight and  
hearing.

Examina-  
tion in  
Milton,  
Mass.

Results of  
examina-  
tion in  
Wellesley,  
Mass.

	Number examined.	Average age (years).	Normal.	Far sight and far-sighted astigmatism.	Near sight and near-sighted astigmatism.	One eye far-sighted, one near-sighted.
Primary, . .	318	7	47	228	25	18
Intermediate, .	176	11	47	103	15	14
Grammar, . .	93	13	23	50	12	8
High, . . .	98	15	23	53	12	10
Total, . .	685	14	140	434	64	50

	Per cent.
Need treatment on account of defective vision, . . . .	23
Need treatment on account of unbalanced muscles, . . . .	3
Need treatment on account of disease, . . . .	4
May need treatment later on account of astigmatism, marked difference in the two eyes, or unbalanced muscles, . . . .	20
Color blind,— all males, . . . .	2
Normal vision in both eyes, . . . .	30
Normal hearing in both ears, . . . .	89
Defective hearing, . . . .	2
("Defective" means: vision, .7 or less; hearing, 36.5 or less.)	

Of the 685 pupils examined, 434, or 63 per cent., had far sight and far-sighted astigmatism; 64, or 9 per cent., had near sight and near-sighted astigmatism.

In Everett material was furnished the principals for testing the eyes of all the pupils above the second grade.\* From the tests given it was shown that, of the 2,345 pupils examined, 1,167 had perfect vision in both eyes. Of the others, 539 were advised to consult an oculist, 252 being fitted with glasses, or receiving other treatment which resulted in permanent improvement.

The above-mentioned tests probably show better results than could be found in most places, for in all the three towns the conditions were exceptionally favorable. Yet enough is shown

in the tests to warrant their being made in every school at least once a year. Dr. Risley says: †  
 "The skilful correction of the errors of refraction in our children's eyes by glasses would go

\* The materials furnished were the regular line of cards used by opticians in ascertaining the range of vision. The tests were all made by the principals, under the direction of a competent physician, who held several meetings and gave them minute instructions for making the tests and recording results.

† Norris and Oliver's System of Diseases of the Eye, Vol. II., p. 417.

far to arrest the acquisition of near sight and its attending pathological conditions." He strongly advises that children be examined upon their entrance to school, saying that, if the eyes of the children were properly attended to at that time, less complaint would be heard of the harmful influence of schools upon them.

Great as are the direct benefits derived by the tests of sight and hearing, they are not the only ones. Teachers see, after such tests, as they never have seen before, the reasons for poor work or apparent dulness of certain pupils. Moreover, a knowledge of the weakness of pupils leads the teachers to a more intelligent accommodation of the work.

Indirect  
benefits  
of tests.

It will be seen that two of the three tests spoken of above were made by the principals and teachers, under the direction of competent persons. This, at least, any town or city can do.

Dr. Allport of Chicago, who has directed the examination of the eyes and ears of public school children in Chicago and Minneapolis, suggests even a simpler and less expensive plan than either of the plans above mentioned. He has caused to be printed instructions and tests upon a large card,\* which are all that will be needed for teachers to conduct the examination. The examination is intended only to ascertain what pupils need an examination for glasses or further professional advice respecting the sight or hearing.

Dr. All-  
port's plan  
of testing  
sight and  
hearing.

The Legislature of Connecticut, in 1899, passed a law providing for the testing of eyesight in all the public schools of the State. Under the law, the State Board of Education is required to furnish test cards and blanks and instructions for their use to the school authorities. The superintendent, principal or teacher in every school is required to test the eyesight of all the pupils during the fall term of each year, and notify in writing the parent or guardian of every pupil who has any defect of vision, with a brief statement of each defect.

Compul-  
sory law  
for exam-  
ination of  
eyes in  
Connect-  
icut.

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\* Cards may be obtained from Mr. Almer Coe, optician, 65 State Street, Chicago, Ill.

In compliance with the above law, the school visitors of Hartford caused to be examined 9,735 pupils, of which number the eyes of 1,596 were found defective or diseased.

Tests in  
Hartford,  
Conn.

Probably the most extensive test of sight and hearing that has been made in this country was that made last year in Brooklyn, N. Y., in which 50,000 children were examined, under the direction of the physical training department.

Tests in  
Brooklyn,  
N. Y.

“Of these, 28 per cent. were found to be deficient in eyesight and 10 per cent. in hearing. Notifica-

tions were sent to the parents of most of these children. As a result, about 2,000 reported treatment and 832 secured glasses within a year and a half of the tests.”

One kind of investigation made by the physical training committee of the Brookline Education Society deserves attention, on account of its unique character and the practical results it

Investiga-  
tion of the  
physical  
condition  
of the  
pupils in  
Brookline,  
Mass.

promises. The investigation was of the physical condition of the children and the hygiene of the class rooms, and was carried on with the assistance of the teachers and medical inspectors. The questions asked were in relation to the pupils' nutrition and condition of spine, and the ventilation, lighting

and temperature of the schoolrooms. The results of the physical examination were as follows (22, p. 22): Out of 2,594 children, the nutrition was considered to be excellent in 1,603, or 62 per cent.; good in 605, or 24 per cent.; fair in 262, or 10 per cent.; poor in 104, or 4 per cent. In the same number the following deformities were observed: of the spine, 4; of the chest, 7; of the extremities, 9; of the head, 4. A more individualized physical examination was made by the same committee through the co-operation of some physicians. Sixty-one boys were examined, with the following results, in part (22, p. 23): Percentage of pupils having poor preservation of teeth, 29.5; abnormal condition of throat, 54.1; abnormal condition of heart, 24.6; abnormal development of chest, 16.4. As one result of the investigation, the committee strongly recommended that certain vacant land be left an open space for a playground for the children of the neighborhood.

## INSTRUCTION.

From the beginning of the course to the end of it, careful and systematic instruction in hygiene should be given, first independent of anatomy and physiology, and later in close connection with those subjects. It is not the place here to suggest methods of instruction, and yet it may be proper to state that instruction in hygiene will be effective only as it is made concrete and applicable to every-day experience. Pupils may be told or they may read from the book all the rules of hygiene, and afterwards be able to repeat them, and yet not be able to see their application so far as their own lives are concerned. If they do not see this clearly, and do not know the reasons why the laws of health should be obeyed, they may as well remain in ignorance. For example, in the higher grades of the grammar school and in the high school pupils should be led not merely to learn the fact that rapid eating is harmful, but to know why it is harmful; not merely to say that pure air is necessary to health, but to ascertain from measurements whether their own bedrooms or schoolrooms are sufficiently supplied with it. There is not a fact of hygiene connected with school conditions or home conditions which might not be profitably worked out by the pupils themselves. If this practice of applying in our teaching to everyday life the principles of hygiene were universal, there would be in time less reluctance on the part of school authorities to provide all the means possible to insure conditions of health, and parents would not be so willing as many now are to defy all the principles of dietary science. Speaking of the ignorance of parents respecting food, Mrs. Richards says (25, p. 17): “To my mind, there is but one efficient remedy for this gross ignorance and misapprehension of the office of food, and that is, to have the science of food taught in all our public schools. Make the simple, fundamental, well-known principles of diet a part of the natural science training in the school, add interest and point to the teaching by classes in cooking, not for the sake of the dishes

Instruction  
in hygiene  
throughout  
the course.

Instruction  
to be prac-  
tical.

The science  
of food to  
be taught.

prepared, although they should be well done, but for the sake of the illustrations they give of the principles taught."

#### GENERAL HYGIENIC TREATMENT.

Having considered the dangers to health to which pupils in school are exposed, we ought next to ascertain exactly what teachers can do to avoid those dangers, and to correct faults which already exist. The first means which suggests itself is physical training.

The chief direct ends of physical training are health and symmetry of body and grace of bodily movements. That these ends are promoted to any degree by the prevailing gymnastic practice in the schools is seriously questioned by many people. There are, doubtless, gained by the exercises a certain degree of muscular strength and increased circulation of the blood; but these are not the only nor are they the chief conditions of health most needed for our pupils. What they most need is recuperation or rest from mental fatigue, and this, it is believed, is not gained by the tenseness of mind required in sharply following the orders of a leader in gymnastics. Teachers, in response to the question as to whether they or the pupils are rested by such exercises, almost invariably answer in the negative; and yet they have grown in favor to such an extent in some places as to constitute the only exercise which the pupils are permitted to have. The growing doubt as to their use as a means of promoting health is shown by the changed character of the exercises recommended by directors of gymnasiums. The dissatisfaction with prevailing methods is voiced in the following statement, recently made by a prominent director of physical culture in one of our State normal schools respecting the system in common use: "I believe the classification of exercises in this system to be the most scientific and effective, but I want to protest most earnestly against their application, as so often seen, by which such exercises are a dose of repulsive medicine, instead of the natural, voluntary, joyous response of the child." In other words, the recreative elements of exercise are wanting in many of the gymnastic exercises. These elements, it is believed,

**The use of gymnastic exercises and their limitations.**

**The faults of application.**

may be supplied in part by a more intelligent application of the principles underlying the best systems of gymnastics, and in part by substituting for many of the gymnastic exercises recreative games and plays, in which the response of the children is "natural, voluntary and joyous." To meet successfully the desired ends, the games should be such as to enable all the pupils to join in them voluntarily. They should give abundant opportunity for free, joyous and frequently emulative action. They may be educational in character, or such as will exercise the pupils' powers of observation, imitation, memory and judgment. To accomplish the best results, it will be necessary for the teacher to direct and oversee the games,\* and, if she is sympathetic enough, to participate in them. The games will afford the best opportunity for profitable child study, and for creating in the teacher sympathy with and interest in the children.

It is a cheering sign that in many places the recess, so long abandoned, is being restored, to be spent, not as formerly in rough-and-tumble sports or in aimless idleness, but in well-directed, joyous exercise, which sends the children back to their studies refreshed and invigorated. The following carefully selected list of games † will suggest what may be played by children of different ages. Some of them, as will be seen, are appropriate for the school yard alone, while others can be played in the schoolroom or gymnasium, or, if there is no gymnasium, in the basement playroom. Those marked S. may be played in the schoolroom, and those marked G. in the gymnasium or playroom. The figures indicate the grade of pupils for which the games are best adapted, 1 standing for the primary grade, 2 for the lower grammar, 3 for the upper grammar and 4 for the high school.

Recreative  
games and  
plays  
needed.

The recess  
being re-  
stored.

A list of  
good games  
recom-  
mended.

\* Miss Brown, of the Washington, D. C., Normal School (10, p. 631), recommends dividing the class into two or three sections, thus freeing the children from apparent direction by the teacher, and giving her an opportunity to do individual work.

† They are selected from the list of games given and described by Superintendent G. E. Johnson in Vol. III. of the Pedagogical Seminary and from "One Hundred Gymnastic Games" prepared by ten members of the alumni of the Boston Normal School of Gymnastics. These are very valuable contributions to educational literature, and should be within reach of every teacher.

Bean bags in a circle, S., G., 1, 2, 3.  
 All up, S., G., 2, 3, 4.  
 Ball hunt, S., G., 2, 3, 4.  
 Beast, bird or fish, S., 3, 4.  
 Call tag, S., 1, 2, 3, 4.  
 Birds, S., G., 1, 2.  
 Follow the leader, S., G., 1, 2, 3, 4.  
 Ducks fly, S., 1, 2.  
 Going to Jerusalem, S., 1, 2, 3, 4.  
 Catch ball, S., G., 1, 2, 3.  
 Guess ball, S., G., 1, 2, 3, 4.  
 Herr Slap Jack, S., G., 1, 2, 3.  
 Observation, S., 1, 2, 3, 4.  
 Basket ball, G., 3, 4.  
 Ball and bases, G., 3, 4.  
 Ball stand, G., 3, 4.  
 Bears and cattle, G., 3, 4.

Black and red, G., 3, 4.  
 Cat and rat, G., 1, 2, 3, 4.  
 Hunt the fox, G., 1, 2.  
 Steeple chase, G., 3, 4.  
 Dodge ball, G., 2, 3, 4.  
 Garden scamp, G., 2, 3, 4.  
 Hanging cats, G., 1, 2, 3, 4.  
 Jump the shot, G., 1, 2, 3, 4.  
 Lamé fox and chickens, G., 1, 2, 3, 4.  
 Last couple out, G., 3, 4.  
 Ninepins, G., 2, 3, 4.  
 Stealing sticks, G., 3, 4.  
 The billed cat, G., 1, 2, 3, 4.  
 Three deep, G., 2, 3, 4.  
 King's castle, G., 2, 3.  
 Fox and geese, G., 2, 3.

All of the above-named games marked "G.," and many others, like "I spy," "tag," "duck on the rock," may be played on the playground. There are many games like "geography," "assumed characters," and "authors," which will be found a valuable help in connection with the regular work of the school.\*

In what is said of the importance of games and plays as school exercises, it is not meant that gymnastic exercises have not a distinctly constructive and corrective value, nor is it

**The true  
value of  
gymnastic  
exercises.**

meant that they should be excluded from the school.

Emphasis is here placed upon exercises of recreation and relaxation, because they have to some extent been discontinued in the abandonment of the recess, and because in the strain of school work they are especially needed. In the thirty minutes allowed daily for recesses, fully two thirds of the time should be given to the wholly recreative exercises. If any more than the remaining time

**Time for  
recreative  
exercises.**

is needed for gymnastics, let it be taken from the time which has been assigned for recitation and study. In school buildings provided with a gymnasium, regular semi-weekly or tri-weekly periods should be

\* In an interesting test, given recently to over 2,000 children, by Mr. Monroe of the Westfield, Mass., Normal School, it was found that 32 per cent. of the favorite games mentioned were ball games; 31 per cent., chase games; and 10 per cent., motion games. Further details of the test are given in (24, p. 1084).



set off for systematic exercise in gymnastics, — periods sufficiently long to give opportunity for carefully graded class and individual work.

That the effects of systematic physical training are felt in other ways than in promoting bodily health should be realized by every teacher. Dr. Hartwell says (21, p. 510): “If we once admit, as we must admit, that thought and feeling, judgment and volition are inexpressible and ineffectual except through motor acts, and that motor acts are animated and controlled by the central nervous system, the inference is clear that physical training is an essential element in the development of mental health and power.” Of the beneficial effects of games in intellectual and moral development Dr. Lincoln says (16, p. 71): “These games are well suited to bring out some of the basal traits of character and intellect, — quick sight, dexterity of hand, agility, lung power, voice, speed, endurance, with love of fairness, self-assertion, will-power, social instinct and general experience of unveiled human nature.”

#### SPECIAL AND INDIVIDUAL TREATMENT.

It is a well-known principle of education that the needs of individual pupils should be met as far as possible. This principle is especially important when applied to physical training. It is applied in every case of eye or ear defect that is observed and treated, and in the case of children who are sent home from school on account of illness. The same principle is recognized in placing defectives in separate schools and classes. In our State institutions for the blind, deaf and feeble-minded it is found very important to give individual treatment to the inmates, especially to those of the feeble-minded school. The same is true with the “abnormally defective” schools and classes already alluded to. In these classes special and individual physical treatment of the pupils, such as manual exercises, baths and gymnastics, is found to be very useful. As time goes on doubtless the treatment will be still more individualized, with the view of preventing possible moral as well as intellectual ills. We may well carry this process of individualization still further in the physical treatment of normal-minded pupils who have signs of

Ways of  
meeting the  
needs of  
individual  
pupils.

physical defects, as shown in wrong postures, awkward movements and malformations. A recent movement in Brookline bids fair to do much in this direction. Here those pupils who are found to need corrective exercises are examined by the instructor of physical training, with a view of prescribing daily home and school exercises. In the clinic, which is held for an hour once a week, a careful examination is made of the pupils who are taking the special treatment, for the purpose of ascertaining what progress is made and what change of treatment is needed.

**Examina-  
tion and  
treatment  
of pupils in  
Brookline,  
Mass.**

It is on such special and preventive lines of treatment for abnormal children that the schools of the future will more and more work. It will not be, however, until the people believe in a policy of prevention rather than mere restraint and punishment in respect to crime. It may be that society for many years to come will seek to protect itself by means of the pound of retributive cure meted out to criminals; but more and more apparent as time goes on will become the effectiveness of the ounce of prevention in the special treatment of children and youth before the crimes are committed. Already there are signs of an awakening realization of the value of reformative measures in the quite general approval among thinking people of the great work which Mr. Brockway has done during the past few years with the prisoners in Elmira. Here for several

**Prevention  
better than  
restraint  
and correc-  
tion.**

**Experience  
in Elmira,  
N. Y.**

years men were treated according to their individual needs by giving them baths, massages, physical and manual exercises, and by providing for them study and useful occupations, with the result, as Mr. Sanborn has pointed out,\* "of securing the astonishing percentage of more than seven reformations out of every ten persons." If the value of special hygienic and educational treatment of criminals is thus marked, what cannot be said of the value of such treatment when given to young persons before fixed habits are formed?

To carry out the needed corrective and preventive treatment for abnormal children, as well as the regular constructive work

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\* Papers in Penology, February, 1900, p. 29. Elmira, N. Y.

for all, there should be employed, in addition to the usual force, a health officer, called the school physician or director of hygiene, whose duty will be to examine from time to time the pupils, for the purpose of ascertaining which of them need special treatment, and to prescribe what that treatment shall be. His duty also will be to inspect the hygienic conditions of the schools, and to recommend needed improvements. In addition to these duties, he will direct and assist the teachers in carrying on the physical training of the school, both in its educational and in its hygienic aspects.

A health  
officer for  
all the  
schools  
needed.

Thus will be assured in education the same consideration for the body which is now believed to be necessary for the mind. Physical training in its broadest sense will become the business of the school no less in the special correction of existing ills and the prevention of greater ones than in the more general building up of the body. Health of body will be regarded not only as coequal in educational importance with health of mind, but as inextricably bound up with it, both in the processes of education and in the ends of efficient service in the world.

LIST OF BOOKS, REPORTS AND ARTICLES TO WHICH REFERENCE HAS  
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2. Seventh annual report of the Maine State Board of Health. Augusta, Me., 1892.
3. Burrage and Bailey: School Sanitation and Decoration. Boston, 1899.
4. Burnham, William H.: Outlines of School Hygiene in Pedagogical Seminary, Vol. II. No. 1. Worcester, Mass., 1892.
5. Report of the Public Education Association of Philadelphia, 1900.
6. Clark, T. M.: Rural School Architecture. Washington, D. C., 1880.
7. Carpenter, R. C.: article in the Brickbuilder for March, 1900. Boston.
8. Woodbridge, S. H.: Schoolhouse Warming and Ventilation. Connecticut. School Document, No. 13, 1898.
9. Cambridge, Mass., school report for the year 1899.
10. Proceedings of the National Educational Association for 1898.

11. Eulenberg and Bach : Schulgesundheitslehre. Berlin, 1900.
12. Burgerstein and Netolitzky : Handbuch der Schulhygiene. Jena, 1895.
13. Report of the Commissioner of Education for 1898-99.
14. Whitcomb, A. K. : An Address upon the Physical Defects of School Children. Lowell, Mass., 1900.
15. Report of the Chief of District Police and inspection department of Massachusetts for 1891.
16. Lincoln, D. F. : Sanity of Mind. Boston, 1900.
17. Warner, Francis : The Study of Children. New York, 1897.
18. Rowe, S. H. : The Physical Nature of the Child. New York, 1899.
19. Annual report of the superintendent of the Boston public schools. March, 1900.
20. Text-book of Physiology, edited by E. A. Schaefer. New York, 1898.
21. Report of the Commissioner of Education for 1897-98.
22. The Brookline, Mass., Education Society Year Book for 1899-1900.
23. Warner, Francis : The Nervous System of the Child. New York, 1900.
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25. Richards, Ellen H. : Sanitary Science in the Home. Philadelphia, 1888.
26. Six lectures upon school hygiene, delivered under the auspices of the Massachusetts Emergency and Hygiene Association. Boston, 1885.
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28. Newsholme, Arthur : School Hygiene. Boston, 1901.

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APPENDIX C.

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REPORT OF G. T. FLETCHER,  
AGENT OF THE BOARD.

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# REPORT.

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*To the State Board of Education.*

My work during the past year has included school visitation, correspondence with school officials, parents and teachers, the holding of teachers' institutes and conferences, and public meetings to bring educational conditions to the attention of the people. For these varied purposes, seventy-five towns, a large percentage of them rural communities with scattered schools, have been visited. Calls from school committees and superintendents for advice and aid have been numerous. Inspection of schools with these officials and conferences regarding educational plans and methods have served to keep the State and the towns in co-operation along lines of educational progress.

Larger State aid to small towns, the extension of high school privileges, and the settled policy of the Commonwealth to make school superintendence universal, will mark the beginning of the new century as a most important era of educational progress in Massachusetts. The more extended co-operation of the State and the towns, educationally, will tend to unify and strengthen the public school system. If the administration of school affairs be marked by economy and efficiency, if the teaching service be maintained at a high standard, the support of the people will be secured.

I believe the schools of western Massachusetts, with very few exceptions, have made commendable progress during the year. There has been a small gain in attendance, excepting in a few towns in which population has decreased. The school year has been lengthened two to four weeks in some towns. Never before have I found so many qualified teachers in the schools. College and normal school graduates, and teachers of successful experience who have not taken profes-

sional courses, have accepted positions in grammar, primary and rural schools, and have done excellent work. In some country schools, teachers of superior education have fitted older pupils to enter the junior class of high schools.

Improvement in school work is due to several causes, such as increase of State aid for teachers' wages, a more careful selection of teachers and better superintendence of schools.

### CONSOLIDATION OF SCHOOLS.

There has been some extension of this plan during the year, in towns more or less favorably situated for conveyance of children. These conditions should always be taken into careful consideration: the size and distance of schools from some central location; and the possibility of securing conveyance that is commodious and comfortable, affording adequate protection to children in all kinds of weather. Such conveyances, if not steam or electric cars, should be drawn by good, safe horses, under the charge of competent drivers who are persons of good manners and sound moral character. It is the duty and the right of parents to demand comfort and protection for their children in the public conveyance to and from school. Provision should also be made for the care of children during the noon hour at the union school.

Consolidation of schools has not only its advantages, but its difficulties as well. Perhaps no other rural town in western Massachusetts better illustrates changed conditions through consolidation of schools than Warwick in Franklin County.

#### *Consolidation of Schools in Warwick.*

Six years ago Warwick maintained 9 schools 24 weeks per year. The average attendance of pupils in the town was 87. Teachers' wages in the 8 outside schools were \$5 per week; in the centre school, \$6 per week. With few exceptions, the teachers were young and without experience, educated in the district schools. Some were under sixteen years of age, — one term a pupil in a school, the next term a teacher. Occasionally, in recent years, a teacher of marked ability and successful experience has been employed, but the number of schools made it impossible to pay wages that would retain the



services of well-qualified teachers many terms. The schools were poorly supplied with books and materials.

Now all of the pupils in town are in three rooms of one modern, well-lighted, heated, ventilated building, pleasantly situated in the centre of the town. The rooms are supplied with good blackboards, and with books and appliances for the use of pupils. The school has three teachers, — normal school graduates of exceptional ability. The average wage paid is \$9 a week; the school year is 36 weeks. Special teachers of music and drawing visit the schools each week. Pupils are conveyed to the centre union school from distant parts of the town. The average attendance in the fall term was 96, — a gain over the attendance in all of the 9 schools six years ago. The schools are well graded from lowest primary to highest grammar grade, three classes in a room. Teachers are selected whose qualifications are especially adapted to the ability and needs of the pupils under their charge. The number of recitations being less than in ungraded schools, the teachers and pupils do much more effective work. The relation of the teachers to one another is one of mutual helpfulness, and the association of so many pupils in the schoolrooms and on the grounds under the supervision of the teachers is pleasant and beneficial.

As a result of the consolidation of its schools and a wise administration of school affairs, the town has, in six years, lengthened the school year 50 per cent., increased the teachers' wages 75 per cent. and employed special teachers of music and drawing, without materially increasing the school tax of the town. Because of the reduction of the number of schools through consolidation, the cost of instruction by the regular teachers has been lessened. A large increase in the amount of money received from the income of the State school fund has been of great benefit to the schools.

Much time that would be needed for travel by the superintendent and special teachers in reaching many small scattered schools is saved for profitable use in the one building of the union school.

The citizens of Warwick have manifested a deep interest in their public schools by the employment of an efficient super-

intendent, the erection of a school building which is a credit to the town, the consolidation of its schools and the employment of efficient teachers.

#### STATE INCREASE OF TEACHERS' SALARIES IN SMALL TOWNS.

The law providing for the payment from the income of the school fund to any town having a valuation of less than \$350,000 of a sum not exceeding \$2 per week for the actual time of service of each teacher approved by the school committee of said town after special examination as to exceptional ability has been of more or less service to these towns. This service has varied with the selection of the teachers and the subsequent examination and oversight given to their work. Under the administration of the more intelligent and conscientious school committees and of superintendents, the law has proved to be of great value in improving the teaching in the schools. Had some plan of State examination of teachers and of State supervision of the teachers aided by the State been in force when the law of 1896 went into operation, an increased efficiency of teaching in all of the towns would have resulted. In the absence of such a plan of State examination and oversight, inferior teachers have in a few instances received the extra State aid with loss rather than gain to the schools. Within the past year the State Board of Education has adopted a more stringent policy regarding the approval of new teachers employed under this law. No approval is now given without close antecedent inspection of their work. Though the plan has been on trial but six months, good results are apparent. Teachers have been selected by school committees with greater care. Promise of extra State aid has been conditioned upon good teaching that should merit approval after special State inspection, thus stimulating teachers to effort. In many schools teachers of marked ability have been secured for the fair wages offered, and these schools have greatly improved under the instruction of such teachers. Some teachers have failed to secure approval, and others have succeeded them. Some teachers of good natural ability are not ambitious to improve by study or by taking a professional course of training, because they can, as "home

talent," secure appointments by some school committees, regardless of their qualifications. The necessity of approval by the Board of Education in order to secure the extra pay is raising the standard of qualifications. It has already influenced some to attend the normal schools. The more stringent policy of the State Board of Education should be made to include all teachers who expect extra aid.

The money now raised by rural towns for school purposes, together with that given from the income of the school fund, including the extra \$2 a week paid to approved teachers in towns of low valuation, should enable these country towns to provide a good common school education, if the money is wisely expended. Two hundred and sixty teachers in 38 towns of western Massachusetts received last year \$10,350.81 under the law of 1896. In proportion as this money has been wisely expended, great good has come to the schools.

#### THE COUNTRY SCHOOL OF THE NEW CENTURY.

What the country school of the new century is to be will depend upon two conditions,—the status of rural communities and the relation of the State to public instruction. Though many of the country towns have lost in population during the last decade of years, quite a number have made small gains. There are indications that the best rural towns are holding their own, and will, in the near future, gain in population and wealth. Many people are feeling the excessive strain of city life upon body and mind; they are realizing that undue excitement has a baneful influence upon their children. The natural attractions of the country, the quiet life, the small but relatively sure remuneration for industry, are considerations that make a home among the hills desirable. Not a few people who have won a competency in the city are coming back to the home towns to spend the winter of life where its spring opened. Men of wealth have given liberally to found libraries in the towns of their childhood, while others have built summer residences on the old homesteads. All such changes tend to brighten the country town, to hold and to increase its population and valuation.

Additional State highways and electric roads are facilitating

communication in the towns and among neighboring towns, rendering the consolidation of schools easier of accomplishment and the conveyance of pupils to high schools less expensive than now.

The home and the school should have a closer relation; habits of industry in connection with farm life should be acquired; and the science of agriculture, in its modern development, should be better understood and more highly appreciated by boys. The elementary principles of this important subject might be taught in rural schools. For this purpose, the State Board of Agriculture could most profitably publish a suitable book.

#### NATURE STUDY IN RURAL SCHOOLS.

Nature study for the rural schools means not the simple exercises of examining and drawing a few twigs and leaves, but a far broader consideration of the child's natural environment.

Local geography should include an examination of land and water conditions. The elevations, slopes, plains and depressions of land should be studied in all their bearings upon climate, soil, productions, water supply and drainage. All natural resources of power, the mineral, vegetable and animal products, should be studied with regard to their relation to human life. Forests should receive special attention as to growth, preservation and use. Farming, grazing, dairying, the raising of all profitable animals and crops, are interesting and valuable topics for rural school study. Present and possible local industries may well receive careful consideration. In addition to "current events," considered profitably every week in some schools, there should be frequent talks and papers upon "home doings,"—the spring, summer, autumn and winter activities of country life. Pupils should be encouraged by home and school life combined to have a personal and property interest in the animal and vegetable life of the farm, as well as in its tools, carriages and buildings.

#### HEALTH CONDITIONS.

Children should come to the country school with health developed by outdoor air and exercise, by work in the house, barn, shop, field and at the wood-pile. A carpenter's bench,

a smith's anvil with necessary tools, should be found on every New England farm. The home training in frugality and industry of fifty years ago was worth much more to the country children than were the meagre privileges of the schools. To-day home and school should offer many more advantages and furnish still better training for citizenship.

#### COURSE OF STUDY FOR RURAL SCHOOLS.

This should include the fundamental branches of the past, with modifications and extensions to meet present conditions. The objects of education, as the acquisition of knowledge, development of power, formation of character, should be kept in view in choice of subjects and a method of teaching. Whatever pertains to a knowledge of the mother tongue should have prominence. Hence reading, spelling, writing, language lessons and grammar must have a conspicuous place. For discipline, and some practical applications, arithmetic is important, mainly after the primary grades. Between the ages of eight and fourteen years the pupil can gain, with proper teaching, a more substantial knowledge of arithmetic than is acquired in a much longer period in schools more strictly graded.

The elements of algebra and geometry may well take the place of obsolete or useless topics in arithmetic. Geography, correlated with history, should bring the child into contact with the world and humanity. Physiology, physics and chemistry should give to the child such elementary knowledge of himself and of the phenomena and forces of nature as will enable him to read understandingly upon subjects within those sciences. Biography and literature should have a large place in the reading of the older pupils. To develop latent talent and to cultivate observation and hand expression, drawing should be taught. Music should have a place in all schools. The subjects named are not numerous. They include those of the past regarded as fundamental, with a few added that are recognized as of much value in modern courses of study. The aim should be to teach a few things well, and to cultivate habits of careful investigation, deep thinking and clear expression. The modern tendency to undue expansion should be avoided.

## HIGH SCHOOL EDUCATION.

The policy of the Commonwealth to extend high school advantages to pupils residing in small towns, by reimbursement to the towns of high school tuition paid by them, is both just and generous. Education in its relation to good citizenship concerns the State as a whole. Town boundaries are not natural limits to school privileges. The child born in a poor town, attending an inferior school, may be a citizen of Boston in adult life.

## HIGH SCHOOL ATTENDANCE.

Last year 235 pupils, from 42 towns of the four western counties, attended approved high schools in other towns, the State reimbursing the towns for tuition to the amount of \$7,503.47. School committees and superintendents have a special obligation resting upon them to see that no pupil is granted a certificate to attend a high school unless able to enter it without conditions as to scholarship. The desire of some high schools to increase their school attendance and to secure tuition money has probably led to the admission of pupils who will require an extra year to complete the course. The inclination of some pupils, or of their parents, to secure entrance to a high school as soon as possible, regardless of age or preparation, is a tendency that school officials must strenuously resist. Complaint is made that the standard of the country schools is lowered by the withdrawal of the older pupils to attend a high school before they have completed the course of study in the local schools. The quality of these schools should be improved by granting them additional privileges. Better teachers should be employed in them; their course of study should be enriched, not only as a preparation for high school attendance, but to afford to pupils who must complete their schooling in the home town the largest possible advantages. Local pride and interest in the town schools need to be fostered, for their betterment and for the welfare and reputation of the communities. The State Board of Education may well adopt a more stringent policy in examining the country schools and the approved high schools, to see that the spirit of the law is strictly observed and that the educational advantages offered by both classes of

schools are all that the law anticipates. Parents, teachers, committees and superintendents should conscientiously and earnestly co-operate for the common good.

#### AVERAGE ATTENDANCE OF PUPILS.

An examination of school registers shows an irregularity of attendance varying from 3 to 20 per cent. of the registration of pupils, while some pupils are losing 50 per cent. of their schooling. A small percentage of absence is inevitable in any school, and there are occasions when, on account of sickness or home conditions, some pupils must lose a large amount of school time. Emulation and undue stimulation to secure perfect attendance by published reports and similar means may be at the expense of the health or possibly the lives of some pupils. But the per cent. of absence is much too large in many schools. Aside from necessary reasons for absence, there are various causes. Parental ignorance of the real advantages of schools, or indifference to them, or weakness in yielding to the wishes of children, are prolific causes of non-attendance. Visitation of teachers to the homes of such parents might awaken an interest in the schools. The failure of the school to be so attractive, interesting and profitable a place as it is possible to make it, causes absence. Disinclination to study, school constraint, inherited tendencies, home and street influences, lead to habitual truancy. Public schools at public expense presuppose the regular attendance of children. Until State attendance laws are enforced by State officials, truancy will not be reduced to a minimum.

#### TEACHERS' INSTITUTES.

Teachers' institutes have been held in Charlemont, Chester, Colrain, Dalton, Great Barrington, Hinsdale, Northampton, Northfield, Sandisfield, Savoy, South Hadley, Southwick, Ware. One hundred towns were represented by 450 teachers. Ten of the 13 institutes were held in comparatively small towns, to bring the advantages of the meetings to teachers who have less educational privileges than those residing in larger places. The speakers and topics were selected with special reference to the needs of the teachers. The attendance of citizens upon the public evening meetings and upon the day sessions of the

institutes is an encouraging sign of the increasing interest of parents and other citizens in modern educational problems and methods.

#### NORTHAMPTON SUMMER INSTITUTE, JULY 2-10, 1900.

The Northampton summer institute was the tenth annual session of the summer institute opened at Laurel Park, Northampton, the last week of June, 1891. For several reasons, it was decided to hold the sessions this year in the new high school building and in the commodious grammar schoolhouse in Northampton. The rooms are admirably adapted to the course of instruction, including lectures and lessons. These were given by college professors, normal, high and training school teachers, superintendents of schools, and special teachers of penmanship and drawing. The sessions continued eight days, and were attended by 200 teachers and some citizens. The registration of teachers was smaller than in preceding years, and the number of towns represented was not so large as was to be expected, considering the location of the institute and the exceptional ability of the instructors. One cause for a diminution of numbers was the late closing of the public schools. For years previous to 1891, institutes had been held for a day only at a time. Some valuable instruction was given and some helpful inspiration imparted, but it was felt by many that a session of one or two weeks would be much more profitable. The Laurel Park institute was an experiment on that line. The schools of western Massachusetts have felt its helpful influence. A change of location and an extension of the program may be desirable should the sessions be continued. The multiplication and growth of normal schools furnish a large supply of trained teachers who do not so much need the vacation institute. Colleges are offering summer sessions for advanced courses of study, especially designed for teachers.

#### SUMMER SESSIONS AT NORMAL SCHOOLS.

The State has invested a large sum of money in normal school buildings and appliances. These, excepting at Hyannis, and for a short time at Salem, are not in use for two months of the year. A portion of this time should be available for the in-



struction of many teachers who have not had normal training, and who are not pecuniarily able to take a professional course at present. Many small towns must for years employ teachers of natural ability and some experience in teaching who are not normal graduates. The State owes to these teachers an opportunity to obtain such aid as a summer session at a normal school will give them. Ultimately, the best of these teachers will take a full course of training. A summer session of four or five weeks in one or more additional normal schools would be of great benefit to many teachers, and through them give an uplift to the schools.

#### SPECIAL COURSES IN NORMAL SCHOOLS.

Teachers of limited means may be able to take one term of their school year to attend a normal school. Provision has been made by the principals of the Westfield and North Adams normal schools to accommodate such teachers. These exceptional opportunities for professional improvement should be utilized by a large number of teachers. Committees and superintendents may well base employment upon acceptance of these privileges.

#### SCHOOL SUPERVISION, PAST, PRESENT AND FUTURE.

The principle of superintendence is co-existent with that of good teaching. It is the essential element in school management. When the teacher becomes the principal of a school, with an assistant, or his oversight of school conditions includes several rooms in one building, or grammar and primary grades in several buildings, superintendence becomes the larger factor in the principal's work. The office of school committee was created for the purpose of superintendence, and in its best estate has been instrumental in improving the public schools. The duties of school committees are twofold. They are to secure appropriations for the erection and equipment of school buildings, for the employment of teachers and janitors and for other necessary expenses. They are also to select teachers, to arrange courses of studies, to direct methods of instruction and management, and to examine the schools to determine the quality of work accomplished by the teachers and the pupils.

There are minor duties, but the general scope of the work comes under these heads. Limitations in results have been due to lack of business ability, scholarly acquirements, professional knowledge, sufficient time and adequate remuneration for efficient service.

The change from the district to the town system of schools, the extension of courses of studies, the grading of schools and improvements in methods of teaching called for special superintendence by experts who should devote their entire time and attention to school oversight. It is also evident that the great increase of expenditure for schoolhouses and appliances during the last fifty years has called for superior business talent upon the part of members of school committees. Indeed, the magnitude and importance of our public school system demand for its wise management a combination of the best business and professional talent obtainable in the school committee and school superintendent. Massachusetts has had in some localities more than fifty years of experience in special school supervision, and the excellence of the public schools is due in no small degree to this service.

The law of 1888, with subsequent amendments, has given to the smaller towns of the State advantages of school superintendence possessed by no other States. The legislation of last winter makes special school supervision the universal policy of the State in 1902.

It is well to review the past, and, in the light of experience, prepare for the future. Any weakness of the system or in its administration is due largely, if not entirely, to one or both of two conditions, namely, to lack of definite or sufficient authority upon the part of the superintendent or to incompetency of that official. Both of these conditions should be avoided in the future, so far as possible. The superintendent's status should be defined by law. His relation to the school committee and to the teachers should be well understood in every community. The committee and the superintendent must wisely combine the legislative, judicial and executive departments of public school administration.

The people should realize the importance of electing the most reliable and competent persons to membership of the

school board. The city or town has no more important interest than its public schools. In the election of a superintendent by the school committee is involved an official action of the highest import, in which only the welfare of the schools should receive consideration. The election of incompetent persons to this office has brought reproach upon the system and injury to the schools.

There has been very apparent loss as well as gain in efficiency of work in changes of superintendents within a few years. The scramble for place, as soon as a vacancy occurs, reveals the fact that many persons unfit for the position can bring influences to bear upon committees that secure an election. Some recognized standard of ability, scholarship, professional training and successful experience in teaching is greatly needed.

#### NEW DISTRICTS.

Last spring Ashfield, Cummington, Goshen and Plainfield united to form a school supervision district, and elected Mr. W. F. Long superintendent.

The extension of superintendence to include all towns in 1902 will require the redistricting of certain towns, not only to promote their mutual advantage, but to make it possible for towns not now under supervision to combine with others to form unions. Several districts are composed of too many towns for efficient service. In the breaking and making of groups of towns, great care will be needed that the interests of all towns may be conserved, and that the schools may enjoy the most efficient service. While the law leaves the formation of districts to school committees, the State pays one half, if not five sixths of the expense, and so may well have advisory influence, and, in case of disagreement among school committees, power to organize unions. The supervision law of the year 1900 is one of the most important educational measures ever adopted by the Commonwealth.

#### THE SCHOOL COMMITTEE A UNIT.

The law defining the powers and duties of school committees recognizes their official status as a board, not their authority to act as individuals upon the most important ques-

tions of school administration. "The school committee shall elect and contract with the teachers of the public schools; shall ascertain by personal examination their qualifications for teaching and their capacity for the government of schools," etc. "The school committee shall direct what books shall be used in the schools and shall prescribe, so far as is practicable, a course of studies." "The school committee may, when they think proper, dismiss any teacher from employment."

The law thus defines the rights and duties of a school committee as a body, acting in a meeting regularly or specially called, a majority vote deciding questions before the board. In many towns the illegal and mischievous practice prevails of "farming out," as the habit is called, to individuals of the committee many of the most important duties devolving upon the board. Individual members engage and dismiss teachers at will and pay such wages as they please. Authority and unity of action are ignored. Some members of the committee may not know the names, much less the qualifications or work, of some teachers in the town. The quantity and quality of school supplies in towns under this individual plan of management often varies greatly. Worthless appliances for school use are sometimes purchased, at large expense, by individual members of the school committee, which the judgment of the committee as a whole would condemn. In other towns no such irregularity of proceedings exists, the school board doing business as an organization for the good of all the schools. Law or public sentiment should correct the abuse of official responsibility.

#### SOME ADDITIONAL SUGGESTIONS.

The tendency, especially in graded schools, to undue expansion of courses of study by adding new branches or by extending the work unduly in old ones, is not in the line of real enrichment of school work. Several things should be taken into account. The mental and physical powers of teachers and pupils are of first importance in considering what can be done most profitably.

Childhood is entitled to home and outdoor life for a reason-

able period of time. Family relations, natural and social environment, opportunity to play much, to do some light work, to gain vigor of body and intellectual touch with the doings of people, are influences that children need. The period from the beginning of the kindergarten to the end of a professional course includes more than half the "expectation of human life." Too much time is demanded for schoolroom preparation for the few years of applied knowledge and skill left of the average period of human existence. The value of the training that comes through the activities of adult life is not duly recognized. Restriction of work, rather than extension, is a need of the times. More thoughtful consideration of a less number of subjects for the individual will yield more valuable knowledge and mental power than comes from a superficial study of too many branches of learning. There may well be a number of electives in the public schools to meet the time, ability and special tendencies of different pupils. Upon the completion of a foundational course, the studies pursued may then depend upon the tastes of pupils and their probable occupations in life.

The practice that obtains in some high schools of conditioning graduation, or continuance in a class or even in the school, upon the rank of a pupil in one study or in a few studies, is gross injustice. The school is for the pupils, not the pupils for the school. The course of study should be elastic enough to provide adequate opportunities for all pupils of fair ability to study such branches as are best adapted to their tastes and needs. The advantages of the public school should be available in the largest measure possible for all the people.

#### STATE AID TO TOWNS.

Distribution of the income of the school fund, or of money raised by any special tax upon the valuation of towns, or upon the attendance of pupils, or perhaps upon any basis fixed by law, cannot meet all existing conditions. The educational needs of towns having the same valuation and the same school attendance may widely differ. Schools may be few and central, or they may be numerous and in widely scattered sections of a town. Consolidation of schools and conveyance of children

should be the policy when conditions are favorable, but in some towns small schools may be a necessity because of long distances and bad roads. The State should render such aid to towns that need it as will enable the school officials to employ competent teachers for all of the schools the prescribed length of the school year. Towns should be required to raise a fair percentage on their valuation for school purposes, that local effort and corresponding interest in education may be maintained. It should be possible for all pupils who desire it to secure high school advantages. The distance to approved high schools renders it impossible for many parents to meet the cost of transportation or of board. Some extension of the present excellent plan may be possible. It is the duty of the State, through special inspection and oversight of schools receiving aid, to see that its money is wisely expended in bringing large educational privileges to all their pupils.

GRENVILLE T. FLETCHER,

*Agent.*

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APPENDIX D.

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REPORT OF J. W. MACDONALD,  
AGENT OF THE BOARD.

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# REPORT.

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*To the State Board of Education.*

The routine work of the year has been much the same as formerly. I have visited over 400 teachers in 73 different cities and towns, have given 26 addresses, 11 of them in the evening, and have spoken 42 times at teachers' institutes. In doing this I have travelled about 12,000 miles. I have also written nearly 800 letters. The work of correspondence adds not a little to your agent's labors, and has to be done for the most part evenings and Saturdays.

## SALEM SUMMER INSTITUTE.

The fourth session of the teachers' summer institute at Salem was held from July 5 to 13 inclusive. There was a small falling off in attendance from the previous years, due partly to the discontinuance of the high school section and partly to an expected decrease in the number from places in the immediate vicinity, whose teachers have very generally attended the former sessions. To partly balance the loss from the second cause, the number coming from remoter places has considerably increased. Still, the expense to teachers of attending the institute too much restricts its benefits to places near by, and the question may be raised whether a change from time to time in the place of holding it would not be well, if conveniences could be found elsewhere. It would be very difficult, however, to find a better place for holding such an institute than the cool and roomy normal school building at Salem.

The program of the past summer was an unusually strong one, and received from the teachers who attended much cordial and appreciative commendation. The compliments, too, which were paid to the institute by visitors, instructors and speakers were many and hearty, of which the following from Mr. W. W.

Stetson, State superintendent of schools for Maine, may be given as an example : —

AUGUSTA, ME., July 14, 1900.

DEAR MR. MACDONALD : — The work in your summer school impressed me as being exceptionally sane. I was greatly pleased with what I saw, because it seemed to me the teachers were told both what to do and how to do it well. I approve most heartily of the topics selected for emphasis. The methods suggested were above criticism. I congratulate you and your associates on being at the head of one of the best summer schools in the country.

Very truly,

W. W. STETSON.

These expressions are very gratifying to those who have had in charge the management of the institute, and are, it may be said, their only pay ; for all the officers of the North Shore Summer School Association, to whom much credit for the success of the institute is due, gave their services and paid their own expenses. Among the officers of the association whose assistance was especially valuable, the president, Frank E. Hobart of Malden, the treasurer, Miss Lizzie H. Coffin of Marblehead, and the secretary, A. L. Safford, superintendent of schools, Beverly, deserve particular mention. All the speakers and instructors at the institute were paid except myself. I am strongly persuaded that a State summer institute should have a session of two weeks, and should be kept at a high standard of excellence ; but, to accomplish this, more than the \$850 now available from the State is needed. It would require at least \$1,000 from the State, with permission to charge those attending a small fee of, say, a dollar, or a dollar and a half ; or \$1,500 from the State, if no fee is allowed.

The work of such an institute should embrace two distinct features, — instruction in special subjects as regards both subject matter and method of teaching, and lectures on topics of general interest. For the first, the best instructors available should be employed ; and, for the second, speakers, in some measure, should be called from other States, that our teachers may become acquainted with the leading educators and the educational views of other sections of the country. To carry out this plan, however, requires money ; and it will be evident,

on a little reflection, that the estimates I have made above are far from extravagant. In my opinion, no State summer institute at all would be better than a poor one.

#### GENERAL CONDITION OF THE COMMON SCHOOLS.

The common schools, so far as my observation has gone, have shown no marked changes during the year, save perhaps a general toning up all along the line. The only very radical step under consideration is whether it would not be better to postpone the beginning of formal number work to the second or even the third grade. The opinion is growing that if this were done the results in arithmetic would not in the end materially suffer, while the time saved might be given to a more satisfactory grounding in other accomplishments, as, for example, reading, language, singing and writing. My own opinion is that this step is a desirable one, even if the time were given to nothing else; for I think we are inclined to force the child's mind too much during the first three or four school years.

There is also showing itself an increasing doubt as to the superiority of vertical writing over all other styles of penmanship. These conclusions seem to be pretty well established: that vertical writing is legible at a cruder stage of progress than are the other styles that it has superseded; that it is slower; and that its effect upon the eyesight, bodily form and health is in nowise different from the effect of other styles, either for good or bad. It seems to me that some simple vertical hand is probably the best for the youngest scholars to begin with, to be changed later into a running hand, with such a slope as suits each writer's inclination. There is no natural law that calls for absolute uniformity of penmanship, even in the same school; and it has been the setting up of an artificial standard of form and slope, and the vain effort to have all pupils uniformly attain it, that has caused in the past so much loss of time and so much misery to both teachers and pupils. Some may fear that this would introduce confusion into the class drill. Not at all. With instruction as to how properly to sit and hold the pen and move the arm and fingers, the pupil's aim should be kept fixed on legibility and neatness, and not on the angle that his letters make with the paper.

Vertical writing has done a good thing in teaching us the superiority of a simple letter, free from all obscuring flourishes. Let us hope that, if it is to be supplanted, this feature will be retained in its successor.

#### ORAL READING.

In my last year's report I called attention to the neglect into which oral reading had fallen in the grades above the primary, and during the year I have endeavored to arouse interest in this important instrument in education and mental and physical training by talks upon the subject at the Salem summer school, at teachers' institutes during the fall and at other local teachers' meetings, and, if I can judge by the opinions that have come to me on the subject, the effort has met with quite general approval. If neglect of oral reading resulted merely in the failure to teach pupils to read aloud, regrettable as this might be, it might still be excused. But oral reading (and by oral reading I do not mean reciting pieces that have been memorized) is the best and in some respects the only means the school provides for training pupils in correct habits of breathing, of using their vocal organs, of articulation, of pronunciation and of vocal expression. Furthermore, for the cultivation of mental alacrity in seizing and accurately interpreting ideas, the school furnishes no exercise equal to reading at sight; for in silent reading the mind only seeks for the approximate meaning, or the idea in the rough, and in reciting memorized selections, the comprehension and interpretation of the meaning are quite likely the result of external suggestion and mechanical drill, — in other words, the reciter is merely imitating and echoing his drill master; but in oral reading, that is, reading at sight, the reader must be quick and accurate in catching the author's thought, or he cannot be ready and accurate in interpreting it. But, best of all, his mind is thrown upon its own resources. Lastly, oral reading is the most efficient means of enlarging the pupil's vocabulary with words of which he will have complete command. By silent reading we learn to know many words by sight, but this does not necessarily, as every one knows, carry with it facility in using them orally. To possess this facility, the words must also have been learned through the ear and the vocal organs. The only other way in

which pupils could acquire it would be in their daily conversation; but in this way the growth of their vocabulary would be very slow, beyond their immediate social needs.

It is evident, then, that the neglect of oral reading results in a considerable number of concurrent weaknesses in our educational training. Why, then, is it neglected?

It will appear, on a little reflection, that good oral reading requires in the reader the harmonious co-operation of a large number of activities, both physical and mental. This necessitates a great deal of drill and practice. The time given to it, however, in grammar grades is three or four periods per week of from twenty to thirty minutes each, according to the size of the class. Now, if a writing exercise is twenty-five minutes long, every pupil gets that amount of drill; so, too, in singing and drawing; but reading is an individual matter. Each pupil, therefore, can get in drill his average share of the time only, about five or six minutes per week; or, if some get more (as occasionally the best readers are given the most time because they are the best), the others are correspondingly robbed. This time is manifestly too small to accomplish much in the cultivation of such a complex process as oral reading with any save a very few of the brightest pupils, who probably supplement it by reading aloud at home. It is a pity that all parents could not be induced to require this of their children, instead of so much silent reading.

But frequently the brief time given to oral reading is largely wasted in irrelevant questioning or other absurd devices. For example, in a school which I visited, a pupil read the following lines from "Snow-Bound":—

So all night long the storm roared on;  
The morning broke without a sun;  
In tiny spherule traced with lines  
Of nature's geometric signs,  
In starry flake and pellicle,  
All day the hoary meteor fell;  
And when the second morning shone  
We looked upon a world unknown,  
On nothing we could call our own.

The pupils read this in a hesitating, stumbling, expressionless way, that showed lack of practice; and then came the

following questions, which, with the answers (as often given by the teacher as by the pupil), took three or four times as long as the reading:—

Who wrote this? Where did he live? What else did he write? What kind of a storm was it? What does “morning broke” mean? What is a spherule? (Answer: A kind of a sphere.) What is geometry? (As the pupils couldn’t say, the teacher made this explanation: “It’s a subject you will know all about if you go through the high school.”) What is a meteor? (Answer: A shooting star.) etc.

Some teachers have a pupil, regularly, after he has read a passage, “give it over in his own words.” It is amusing, if one can shut his eyes to the sadness of it, to watch a class that has been thoroughly trained in this procedure. Instantly the last word of the paragraph is read, the pupil shuts his reader with his finger in it for a bookmark, swinging it behind him, and without drawing breath, hurries to explain in jumbled English what he has just read without intelligence. As a general thing, the girls excel in this feat.

One illustration of this practice will be sufficient to show results. It is, perhaps, an extreme case, but it shows what will pass when a school device degenerates into mere routine. The illustration is taken from a reading of Hawthorne’s “Story of the Pine-Tree Shillings;” the part in quotation marks is the pupil’s explanation, which was accepted by the teacher. A scholar reads:—

On the wedding-day, we may suppose that honest John Hull dressed himself in a plum-colored coat, all the buttons of which were made of pine-tree shillings. The buttons of his waistcoat were sixpences, and his shoe-buckles were made of silver threepences. “On the wedding-day John Hull was dressed in a lot of pine-tree shillings, and there were buttons on his waistcoat and he had shoe buckles.”

Then the girl took her seat, wearing a look that betokened the consciousness of a difficult task well performed.

It seems as if, with a moment’s thought, a teacher should see that the aim in oral reading is to train the pupil to convey the meaning of a passage by *reading* it and not by appended ex-

planation, and that all questions and devices should have this aim constantly in view.

But teachers lose time in other ways, especially in correcting the pupil's mistakes in reading. These mistakes are frequently the omission or insertion or substitution of words. They merely indicate a lack of practice, and will in time, with sufficient practice, correct themselves. Generally it is best to overlook them. But the mispronunciation of a word will, if uncorrected, grow into a habit, and should therefore always be corrected by whatever drill is required.

As I have said, the time given to oral reading is not sufficient to yield good results. It is not so great as formerly. In the "enrichment" of grammar school courses, it seems to me that oral reading has suffered the most curtailment to make room for other things. There seemed to be a reason for this curtailment in the fact that the increased amount of silent reading imposed on pupils appeared to be a substitute, though silent reading is in nowise a substitute for oral reading.

Oral reading has had to give way in some cases to Latin; and I have found Latin five times a week, and oral reading only twice a week, in grammar schools whose scholars could not read with intelligence, and without a good deal of stumbling and mispronunciation, a simple English selection that I called for from their reading book. Indeed, where Latin is introduced into the grammar school, instead of decreasing the time allowance for oral reading, an increase rather is needed to counterbalance the strong tendency to mumbling and indistinct articulation in the Latin recitation.

In closing this topic, it may not be amiss to remark that the public at large, with an intuition that is sometimes wiser than our educational theorizing, has always regarded oral reading as one of the most valuable school exercises, and feels a good deal of dissatisfaction over its present neglect. Not that there is much open complaint, for the public is very submissive, partly because it fears to assert itself against the views of educators, and partly because it has been brought to feel that if a subject has any *practical* value, it is therefore of very little use in education; but, more than this, the public has become somewhat wearied of those elocutionary performances which

by being called readings have brought more or less discredit on reading. These are not, however, readings in the strict meaning of the word as we use it in the common schools, but a very artificial and affected kind of reciting and acting. From this performance oral reading in the school needs to be preserved as much as from total neglect.

#### HIGH SCHOOLS.

The high schools of the State have quite generally had a large increase in the number of pupils entering at the beginning of the school year in September, — the continuation of a growth that has been very marked during the past three or four years. The interesting feature of this growth is that in many cases it has been at a much greater ratio than the increase in population of the places in which the high schools are located, and has been large in some places where the population has been stationary.

There are apparently many causes for this growth: the feeling that a higher education is needed to cope with the present conditions of life, both social and industrial; the increasing disposition to recognize the high school as a natural part and continuation of public education; an improvement in circumstances, that enables parents to give their children better advantages for a start in life; in some places, a decrease in the demand for boys' labor in factories and mills, and in other employments of a distinctly manual character; and lastly, the broadening of high school courses of studies, so that now, whatever their destination in life, young people find something in the high school that seems to meet their wants or tastes.

That the cause last mentioned has had a strong influence in drawing scholars into high schools cannot be denied, for, as a rule, the schools that have broadened the most have grown the fastest. The principal changes in high school courses the past year, as for the few years preceding, have been in the direction of studies and training that will fit pupils for industrial and commercial occupations. A good many of the larger high schools now offer substantial commercial or business courses, including such studies as bookkeeping, typewriting,



stenography, commercial geography and arithmetic, banking, etc., together with studies that aim at general culture and intelligence. This last seems to me a commendable feature, which I hope will be adopted in all high school courses to be formed hereafter.

#### HIGH SCHOOL BUILDINGS.

There has been a diminution in the construction of high school buildings during the past year, as compared with the five or six years immediately preceding. One has been completed and occupied in Georgetown, one in Barre and a third at Southborough; and in East Boston, Waltham, Stoneham and Milford others are in process of erection. The three buildings completed during the present year have been built large enough to accommodate some of the lower grades, and in this way room has been provided for future growth of the high school.

It appears from present indications that there is to be a considerable number of high school buildings constructed in the immediate future, and a few words on the matter may not be untimely.

It is well known that the earlier plan of constructing academy and high school buildings was in general one large assembly room (in rare cases two), sometimes capable of seating 150 or more scholars. Of this room the principal had charge, and had to hear most of his classes in it. Recitation rooms, for the use alone that the name indicates, were in charge of assistants, and were occasionally on the same floor, but usually on the floor below. This plan prevailed until near the last quarter of the century, and is still adopted in some small places. But with an increasing number of pupils it became for obvious reasons undesirable to continue enlarging the assembly room, and to increase the number of assembly rooms capable of seating 100 or more became a problem of construction the solution of which was very unsatisfactory. For obviously these rooms cannot all be placed on the same floor, and one cannot be placed over the other without introducing in the lower rooms objectionable posts for floor supports. There came then a very abrupt change to the other extreme, of having all the rooms small, just large enough to seat a single section; with each

teacher, except perhaps the science teacher and of course special teachers of drawing and music, in charge of a room. Besides some objection to this arrangement on the ground of management, there is this inconvenience, that, in case a teacher is absent for any cause, the scholars of her room must be dismissed, or, what is but little better, a substitute must be employed, for there is no regular teacher available to take the room. Moreover, it is rarely the case that all the teachers are equally strong in management, and while some of them, especially new ones, may be good instructors, they may not be quite equal to the care of a room at first.

There is, however, an intermediate plan that obviates these difficulties, and gives new teachers an opportunity to grow to the higher responsibilities. This is the plan of having seating rooms large enough for double sections, or for 50 or 60 pupils. The care of these would require about one half the regular teachers, and the others would be in recitation rooms conveniently located. If, then, one of the teachers having charge of a seating room has to be absent, one of the recitation room teachers, who would know the pupils and whom the pupils would know, can take her place, and the substitute, if one has to be employed, can be assigned to work in the recitation room. New teachers also can begin their work in this way, with much less danger of making a failure and demoralizing thereby a part of the school. This is the plan of the new building that is constructing in Stoneham.

### HIGH SCHOOLS FOR SMALL TOWNS.

The efforts of the smaller towns of the State to solve the problem of high school education for their scholars are interesting, in view of the two exactly opposite courses that are being taken to accomplish this end.

Several such towns, that have been maintaining high schools with one or two teachers, have discontinued them, and are sending their pupils to the high school of some near-by town or city. North Reading, East Longmeadow, Lincoln, Bedford and West Brookfield may be named as late instances. Many more are strongly contemplating the same step. At the same time, other towns of this class that have not heretofore main-

tained high schools, as Chester, Huntington and Carver, have lately started high schools, in the hope evidently of making a saving on the cost of sending their scholars to outside high schools; and others are agitating a similar move.

As has often been said, the high school problem in towns of this class is an extremely perplexing one, and it is not always easy to decide what to recommend, in their varying conditions. There seems to be no *one* best course equally open to them all.

In case a small town is so remote from the nearest good high school in another place that the cost of transporting its pupils to it would be a heavy burden, to say nothing of other inconveniences, there seems to be no better way for the town than to furnish its children at home with such advanced education as it can,—no better way, unless a group of two or three small towns thus isolated can get together and support a common high school. But where a small town is so situated that it can conveniently send its pupils to a good high school in some place near by, then it is better for it to do so, in whole or in part, until such time as it can afford to establish a high school of its own, with at least three teachers. I say in part, because, if a small town with its available teaching force can give good high school instruction for one or two years, fitting its scholars to enter a good high school as many years in advance, I think it is well for it to do so. Under these conditions only is the high school work in a small town likely to be kept up to standard. For the objections to a full grade high school in a small town are: first, that the limited number of teachers cannot do all the required work well; and, second, that it permits a lowering in the character of the work in the grades below, or, in other words, is pulled down by inferior work in the grades below. For a parent in a small town is a much larger part relatively of the whole community than in a large place; and, if his son or daughter has gone through the lower grades, then the high school must take in that son or daughter, no matter how poorly he or she may be qualified to enter; for, if it does not, there will be at the next town meeting a campaign of vengeance carried on against school committee, superintendent and principal, that will make life a burden for them. But if the town sends its pupils to an outside high school, either in whole

or in part, this fixes a standard over which the parents have no control, and which they accept as final; and then, if their children are refused admission, their wrath will be directed with stimulating effect towards the inferior work in the schools below.

### THE PERENNIAL QUESTION.

Courses of studies is a topic that still excites a great deal of discussion. The only persons who seem to be absolutely settled in their views on this question are the extreme classicists, who regard the pursuit of any studies except Latin, Greek, one or two modern languages, abstract mathematics and ancient history, as almost a waste of time, and who would make therefore no concessions in the high school to those who wish their children to pursue other studies except to have them help pay the cost of maintenance.

Among those, on the other hand, who think that the high school should offer a broader opportunity for study (and they are largely in the majority), the question of courses of studies gives rise to two queries; first, should a pupil be limited to relatively few studies, whatever these may be, each of which must be taken strenuously and at some length, with an eye chiefly to "mental training," or should his studies be broader, if he so desires, and of course, in part at least, less intensive? And, secondly, how far is it advisable to permit election of studies, as distinguished from election of courses of studies?

Should studies be relatively few and intense? In regard to this query, it should be borne in mind that practically every subject studied in the high school is capable in presentation of being divided into two progressive stages, the first elementary, and dealing with the observation and the use of things, the second advanced and more scientific, generalizing and interpreting facts and discovering laws.

Now, pupils differ much more frequently and extensively in natural ability and in their power profitably to pursue a subject deeply than they do in special talents or tastes; and, while all scholars can take the elementary phase of almost any subject, it is doubtful if half of them can profitably pursue all of them in their advanced phases. If, then, it is desirable to broaden high school courses of studies to meet the different tastes and

talents of the pupils, as well as to fit them for different destinations in life, why is it not even more desirable to so arrange studies that pupils who may not be able profitably to pursue some of them intensively may not be obliged to leave school in entire ignorance of them?

Such arrangement can easily be effected, for not only are the studies capable of the division above stated, but it is only when this division is recognized in teaching or studying a subject that the best results are obtained. Even the abler scholars are not capable of doing the advanced work to the best advantage till they have done the primary. For example, the unsatisfactory results and slow progress in laboratory physics, as carried on in some of our high schools, are due to the fact that the pupils, not having had any elementary instruction in the subject, are working from too narrow an outlook.

Is it true that short elementary courses in the high school are unprofitable? Is breadth in education harmful? Are we sure we are not overvaluing intensiveness in education? It may be readily granted that some of the work of every regular pupil should be intensive, but must it all be? Is depth of knowledge in some specialty the only test of scholarship? Is the German professor, who spent his whole life studying the history of the Greek letter *iota*, the only, the most interesting, or the most valuable, type of a scholar?

If people competent to give an opinion on the subject should be asked to name the three events in the progress of science that have the best claim to be called "epoch making," nine out of ten would answer without hesitation that one of them was Newton's demonstration of the laws of gravitation, and another was Darwin's exposition of his celebrated theory of natural selection to account for the origin of animal and vegetable species. As to the third, opinion would undoubtedly be divided; but the greater part of the replies, in about equal numbers, would name either the publication of Bacon's "*Novum Organum*," by which a new method was instituted in the study of nature and science, or John Dalton's exposition of the atomic theory. It is worthy of notice that all four of the men thus famed were born and educated in England and not one of them in Germany, where the centripetal tendency in education has

been most marked; and that they are all, it may be said, remarkable for the breadth of their learning, rather than for the depth.

Of Francis Bacon it is not too much to say that there was scarcely a department of human knowledge in which he was not versed, — law, theology, statecraft, science in all its departments, literature, language and history; and he was also of no mean attainment in architecture and landscape gardening. It may in this connection be recalled that Queen Elizabeth spoke of him as a man of wit and learning, but “not very deep.”

John Dalton, besides chemistry, which was his chief study, and which furnished him the data for his atomic theory, was conversant with mathematics, physics and every other department of natural science; he published a work on the elements of English grammar, and all through his life was a most careful observer and recorder of meteorological phenomena, and published in 1793 a series of essays on this subject.

Sir Isaac Newton was one of the broadest scholars of his day. One of his biographers says of him, while an undergraduate at Trinity College, Cambridge: “It does not appear that he showed a marked pre-eminence in the studies of the university, *but he extended his acquirements beyond the prescribed routine in several directions.*” The Italics are mine; but the passage shows that Newton must have been unfamiliar with some modern ideas regarding theory and practice in education. His studies through life included mathematics, astronomy, physics, chemistry, history and chronology, with which he says he was accustomed to “refresh himself when he became weary with other studies.” In addition to these, he was a persistent student of the Bible, on parts of which he published commentaries; and as master of the mint in 1717 he made a report to Parliament that shows him to have been thoroughly acquainted with the laws of coinage and the practical working of bimetalism.

Of Charles R. Darwin it is enough to say that his broad knowledge of every department of biology and geology, to say nothing of other sciences, gave him possession of the several converging lines of evidence that led him to his celebrated discovery, — lines that profounder specialists, like Audubon, Cuvier, Linnæus, Dana and Agassiz, failed to see.

It is interesting to note, however, that the discovery of many of the details of the theory of evolution that escaped the notice of Darwin are due, in part at least, to German investigators, who are good at such minutiae; such, for example, as the discovery that the eye and ear are only modified forms of hairs and hair-sacks which in the lower forms of life were organs of touch, as are still the long whiskers of a cat, and which became more and more sensitive to vibrations of light or sound, and more and more adapted to sense them.

Furthermore, any one who is acquainted with the field of modern philosophy, as represented by such exponents as Herbert Spencer and John Fiske, will testify that it calls for great breadth of knowledge, even though it must be at the sacrifice of the deep and minute knowledge of the narrow specialist.

But, barring these considerations, is it well to begin too early in life to narrow the pupil's course of studies? Is it not true that every occupation in life tends almost too strongly to specialization and narrowness, and needs all the counteractive influence that a broad education in early years can furnish? With pupils fitting for college, however, this consideration would have much less weight.

With the plan of arranging studies as I have suggested, both depth and breadth in education could be given due consideration, according, of course, to the limitations of the school and to the ability, tastes or destination of the pupils. Pupils who wish could take chiefly the advanced courses (including the elementary); others could elect fewer of the advanced courses, but more of the elementary, as the best interests of each pupil seemed to make it desirable.

It should be understood, however, that the object of these elementary courses is not to make easy work for indolent pupils, as is generally asserted. The assumption that weak, desultory mental work is inevitable with short elementary courses of study has been too readily and thoughtlessly accepted. Any plan that would involve such a result should be severely condemned. For, as it appears to me, the one kind of training that is essential to successful mental effort, and valuable in every occupation, is the power to concentrate the mind on a problem, and hold it fixed there long and intently; in other

words, the power to do hard, persistent work. But this power can be acquired only by working hard and persistently within the limitations set by individual ability. Furthermore, each and every subject of study is an equally efficient means to this training, and it makes far less difference than is often claimed whether the time and the mental effort are bestowed on one subject or on three or four. Indeed, as young minds are constituted, it is likely that most scholars would work much harder under the latter conditions, the change of subject acting as a stimulus. For my part, I can see no reason why scholars cannot be made to work as hard on a year's course made up, say, of twenty weeks in geology and twenty in botany, as if the whole time were given to either one alone. Besides, it is not an unusual thing to find pupils in studies that are prolonged and intended to be intensive doing poor work and acquiring bad habits of application, because they have got beyond their depth and lost their interest.

I have argued this point at some length, because I believe that it is better for most scholars graduating from the high school to have a broader knowledge of the world in which they live than they now get, and that such a knowledge will contribute to the greater enrichment of their lives; and that the high school should have something for those pupils who are either incapable of pursuing a few studies intensively, or do not wish to do so.

#### ELECTIVES.

In regard to this subject, I can do no better than to present in full a paper read before the high school section of the State Teachers' Association at its last meeting, by Mr. Charles M. Clay, principal of the Roxbury high school. Mr. Clay writes from the standpoint of an interesting experiment now going on in his school, and his paper is so full in regard to all the advantages and difficulties of the system, and is so conservative withal, that comments on it by me are needless. The paper will be found immediately following this report.

Respectfully submitted,

J. W. MACDONALD,

*Agent of the Board.*



## THE PRACTICAL WORKING OF THE ELECTIVE SYSTEM IN HIGH SCHOOLS.

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BY CHARLES M. CLAY, PRINCIPAL OF THE ROXBURY HIGH SCHOOL.

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When one has once decided to make trial of the “elective system” in a high school, the first problem that presents itself is, “How shall it be introduced, — beginning at the top, beginning at the bottom, or all at once?” As this is a mere detail of administration, the answer must depend upon the school. If it be very large, overcrowded, with insufficient school room or inadequate teaching force, it would be far easier to offer the privilege to only one class the first year, extending it to another the next, and so on, until fully introduced. But, if the master is sure of himself and of his ability to satisfactorily deal with any difficulty that may arise, it is better to plunge *in medias res* at once, and study the problem in its entirety from the first. By the first method, problems which have been partly solved the first year frequently have to be radically changed the second, and again modified the third, as new factors appear. By the second method, problems, when once settled, have to be modified very slightly, if at all. Personally, though having 700 pupils and too few recitation rooms, I preferred to deal with the whole problem at once, and, as a result, during the first three weeks of each school year I have lived rather a strenuous life.

The next problem to be solved is, how to deal with parents and pupils who seek advice concerning the election of studies.

My experience so far in the two years I have tried it teaches me that a principal can make himself as much or as little trouble here as he sees fit, according to his interpretation of what his duty is. If he has a preconceived notion that this or that study

is, *per se*, of too great value to be omitted, and hence that he ought to influence every parent and child to have it elected, no matter what their preference may be, he is bound to make himself no end of trouble and to do more hurt than good. In the Roxbury high school the only two subjects required of all are English and physical training. If parent or child seriously objects to any other study whatever, I should never urge him to take it, unless it has a direct bearing upon some special work that he is undertaking. That would destroy the most valuable thing in the elective system, perhaps; for the vital point is to learn to exercise wisely the prerogative of *choice*, which means not that he shall study what he will, but that he shall will to study something.

There are a few individual cases where the teacher is called upon to make use of all his influence and powers of argument. For instance, one girl was anxious to become a doctor, yet would not take the college course, because of its difficulty and the length of time required to go through college. No arguments or influence at home seemed to have any weight with her, and it was not until I called her attention to the constant increase in the requirements of the medical schools, and convinced her that she would have to be content, all her life, to attain a much lower rank as a physician than those so much better prepared, that she yielded. She has been doing good work ever since. She was convinced only by being made to see the purpose of the work and its direct bearing upon her future life. And only so is your influence of any value, for —

“ He that complies against his will  
Is of the same opinion still.”

The sort of advice that the principal is oftenest called upon to give is not so difficult, nor is it peculiar to the elective system. It is in answer to such questions as this: “I want my boy to become an engineer, or a lawyer, or a musician. What studies do you advise him to take?”

The next problem is by far the hardest of all, — so difficult, in fact, as to test to the utmost the principal's power of organization. Having decided to adopt the elective system, and your pupils having elected their studies, it devolves upon you

to make out a working program. No rule or method can be given for solving this. Each school has its own peculiar problem, differing from all other schools, and no two years alike.

The one thing to remember is to arrange the *regular* courses of the school, such, say, as the "college" and "commercial" and "English" courses, and to allow your "special courses" to be elected from these. In this way you always have a framework to build upon, and you simply have to play a regular tune with a given number of variations.

To attempt to make a program giving expression to individual wishes, without such regular foundation, would be about as hopeful as to allow each pupil to write on paper three or four notes of music, and to attempt to arrange all these notes into one grand harmony, without discord.

At last the program is finished and the school is in running order, and now come difficulties of administration never met with before.

*First.* — A's studies come as follows: Monday, five consecutive hours; Tuesday, one recitation, the first hour; Wednesday, one recitation, the last hour; Thursday, a recitation the first and last hours, with nothing the second, third and fourth hours; Friday, a recitation the second and fourth hours. What should he do his free hours? Preferably, he should go home; but that should be as his parents decide. I have each pupil make a diagram on a half sheet of paper, dividing the five school days of the week each into five periods, and then require him to write a word, or number, or both, in each space, which shows exactly where he is to be each one of the twenty-five periods. Beneath this program he writes, "The above program has my approval." This must be signed by the parent and placed on file with the room teacher. In this way parents and teachers are in accord as to whether the pupil goes home or stays in school for study, and as to whether he takes a full, regular course, or only a partial course.

*Second.* — The pupil's single recitation the last hour Wednesday and the two the second and fourth hours Friday do not take place in the room in which he is enrolled, nor to the teacher who has charge of that room. How can a teacher who has but half of her pupils present at 9 o'clock, and has none of the

others recite to her, know whether they have all been present at their required recitations or not? The solution of this lies in an entirely different method of keeping attendance. Each teacher keeps the attendance at her own recitations, and writes upon a slip of paper prepared for the purpose the pupil's name, the room to which he belongs, the recitation and the period from which he is absent, and deposits all such slips in a general receptacle before going home, each day. These slips are assorted by one person the next morning, and distributed before 9 o'clock to the respective room teachers. In this way each teacher knows whether or not John Jones was present the second and third hours, but "cut" the fourth hour.

*Third.* — How can the coming and going of so many pupils between hours be regulated so as not to cause disturbance? This problem we have found the easiest of all to solve. In the first place, if a single pupil talks or makes any disturbance in the corridors or wardrobes, he loses the privilege of going home at that hour for a month; and if the offence is repeated, for the remainder of the year. In the next place, if the disturbance is made by a large number, they are all deprived of the privilege, except such as assert, upon their honor, that they have made no disturbance at all. This has always proved effective in preventing disturbance, and I have had but one complaint this year.

*Fourth.* — How can teachers see their pupils to give them general instructions? The teacher and the class agree upon some one hour during the week when every pupil must be present, and no excuse is valid except sickness. At this hour the room teacher has the right to the entire class so long as he needs them. Besides this, each teacher notifies his pupils of one or more "consultation hours" during the week, when the pupil can make up lessons, etc.

*Fifth.* — How can you find a pupil, at need, that has no class and may not be in the building at that hour? On each teacher's desk is a card catalogue of every pupil registered in that room, and in the office there is one of every pupil in school, showing just where he should be each one of the twenty-five hours of school. It would be almost impossible to conduct a large school under the elective system without it.

These five points illustrate all the differences of administration peculiar to the elective system, and in no case, excepting the making out of a program, do they present any great difficulty. I frankly confess that, under the elective system, making a program for a large school that shall justly allot time and studies to both teachers and pupils is a colossal task, taxing to the utmost the executive ability of any man. But if you are not "born" to the task, you can probably find some unpretending teacher among your corps who will solve this problem for you in such a way as ever after mightily to increase your respect for hidden values and reserve forces.

Having now considered the influence of the elective system upon the teacher's task, let us examine its effect upon the pupil.

In the first place, allow me to say that, in the November and December numbers of "Education," in an article upon "High School Reform," I have already discussed the elective system from the standpoint partly of theory and partly of induction from the experience of others. I mention this here only because some of the questions now to be considered cannot be answered in a few words, or by short, concise statements such as this paper calls for; and with the hope that, if any answer now seems inadequate, whatever additional argument that article may contain will be considered before the defect be scored against the system. And I would add that all I have there said in favor of this system, based upon theory and induction, I now reiterate and emphatically reassert, as the result of practical experience, so far as my limited experience goes.

1. Do pupils elect "soft snaps?"

No, — unqualifiedly, no. The most careful analysis I have been able to make, after two years' experience, is that pupils' elections may be divided into three classes: —

(1) Those that elect one of the regular courses, with the sole view of getting all the school can give them.

(2) Those that specialize, electing, with a view to future occupation, such studies as they think most helpful to them, regardless of number or difficulty, within the limit of their ability.

(3) Those that are pursuing a special education in art or music, or some kindred subject, who wish to supplement such education with as many studies as they can find time for.

The introduction of this last class has been a revelation to me. Remember that, wherever in the United States there is a boy or girl of genius, or special talent in music or art, literature or science, if he can afford it, he seeks Boston, to cultivate to the highest possible degree the superior talents with which God has endowed him; and remember that no small part of Boston's attractions to him is the reputation of her schools. Remember, too, that in the past the doors of the public schools have been closed to all such pupils, and they have been forced to pursue their general education at private schools; and consider that it is these very pupils that have given Boston's private schools such a high reputation. Then think for a moment what it means to such pupils to open to them the doors of the public schools, and relieve them of the great expense of private schools; and what a source of inspiration it is to the public schools to introduce these earnest, hard-working, mature young men and women, the most talented in their respective lines that the country can produce. Why, the effect of these pupils upon my own school has been so marked already that I should plead for them with all my power, even if there were no other argument in favor of an elective system.

2. Do pupils tend to elect unusual or chaotic combinations?

The answer has already been given indirectly in stating what they do elect, but I will answer directly, no. The only unusual combinations arise from the pupils coming from other high schools trying to adjust themselves to the requirements of one of the regular courses.

3. Do pupils drop studies merely because they find them hard or distasteful, whereas, otherwise, they might be made to buckle down to hard work, and finally conquer?

Undoubtedly this is true in some few cases, but so few as not to be noticeable. My experience has been this: under the elective system pupils drop studies for two reasons:—

(1) Because they find them too hard, as a result of a lack of application on their part, or of physical or mental ability. Such pupils, under the prescribed system, dropped all studies and left school, when the result of their examinations showed that they were not going to pass. Under the elective system they remain in school and continue such studies as they find

they can successfully pursue. This class of pupils is characterized by wanting to drop the studies which they find the most difficult, whatever they may be.

(2) There is another class which wants to drop some studies that they may have more time for the others; in other words, they wish to specialize, after having tried the full course and not found it satisfactory to them. The studies most frequently dropped by this class are music and drawing. They do not seek to do less work, but more.

To the second class I offer but very few obstacles, when I find that parents and pupils have fully considered the matter and made up their minds. With the first class I struggle so long as I can, and finally, when driven to it, accept "a half-loaf as better than no bread."

4. Are some popular subjects, or certain popular teachers, overcrowded?

Whether my experience here is of any value to any one else, I cannot say, but so far I have not found a single subject or a single teacher overcrowded at the expense of another. If I may express a personal opinion, I should say that there is no such thing as a "popular" subject; that whatever of popularity or unpopularity there may be hinges upon the personality of the teacher; and that the Roxbury high school has no unpopular teachers may be inferred from the fact that I have not received requests to recite to one teacher in preference to another in more than a half-dozen instances during the past two years.

5. Is the effect upon scholarship or discipline marked?

Upon discipline it is very decided. Pupils are at school for a purpose which they realize, doing only what they choose to do, and not what others compel them to do. The effect upon their sense of responsibility, upon their dignity, upon their whole attitude towards the school, is most beneficial, and is apparent to all.

As to scholarship, I cannot speak so confidently. I asked the question of my teachers at the end of the first year's trial, with the following result: rather more than two fifths noted an improvement; about two fifths noted no difference; rather less than one fifth noted a slight deterioration. I have not been able to analyze these reported results satisfactorily, *i.e.*, to

decide to what extent these replies were affected by previously conceived prejudices, or were the result of unconfirmed impressions. I hope to be better able to answer that question at the end of this year, because of the method I have adopted. I have proceeded upon the theory that pupils whose studies are only such as they, of untrammelled choice, have elected, should be expected to show at least passable scholarship in each subject, in order to justify that privilege. Therefore, all pupils pursuing an elective course, whose studies are not satisfactory at the end of any examination period, are to be warned and put upon probation for a month; if they are not satisfactory at the end of that month, they must give up the study. I think this can hardly fail to conduce to better scholarship.

6. How does the community view the experiment?

To this I can give a very definite answer. At the close of last year a letter was sent to the parents of each pupil, requesting a written reply to each one of the following questions:—

(1) Do you approve of your son (or daughter) being allowed to elect such studies as he prefers?

(2) Do you approve of his being allowed to leave the school building when not reciting?

(3) If he returns to school next year, do you wish one or both of these privileges continued?

(4) If you disapprove in either case will you please give your reasons.

The following is the result:—

Number of replies received and read, . . . . .	500
Number approving neither privilege, . . . . .	9
Number approving the privilege of election only, . . . . .	12
Number approving the privilege of being excused only, . . . . .	5
Number misunderstanding the questions, . . . . .	6
Number approving both privileges, . . . . .	468

I need scarcely say that I accepted these answers as conclusive.

In closing, I would emphasize the fact that the larger the school or the divisions, the more the tendency increases for the principal and the departmental teacher to consider his pupils as so *much material*, rather than as so many separate pupils; to



treat them as one mass, rather than as so many individuals. Do the best he can, his mind tends all the time to become fixed on the *thing* he is working for, and not the *person* he is working upon. It is almost impossible not to concentrate his attention upon the study, the rank, the diploma, with a definite ideal in his own mind of the standard of attainment towards which he is aiming. And, praiseworthy as this is from the abstract standpoint of the departmental teacher, it is apt to be hard upon the luckless wight who does not come up to that standard. Upon him is made a personal application of the story of "The iron bed of Procrustes." One after another, as they pass through the prescribed course, pupils are fitted to the standard, repressed and lopped off a little here, drawn out to attenuation or stretched to the point of breaking there.

The schoolmaster in charge of a large school has been likened to a general in charge of a large army, and it seems to me that the simile is an excellent one. The general orders forward his soldiers in a mass against the objective point to be attained, with no more thought of or consideration for the individual soldier than he has for the single grain of powder in the charge which hurls the deadly shell to pave the way; and, when those whose courage has not failed them, and who have not fallen by the way, arrive at the height toward which all their efforts have been directed, which they have looked forward to as the end of their desperate struggle, they find that they have captured a veritable "Spion Kop," from which retreat is impossible, which in itself does not afford means of livelihood and is absolutely untenable, only to learn, almost despairingly, that before them stretches height after height, each surmounting its predecessor, each of which must be stormed and captured in turn, and to realize how utterly inadequate is their equipment for further conquest.

Under the elective system those pupils that elect the regular courses may still be grouped *en masse*, but those that specialize cannot. The teacher is obliged to consider each case individually, and to give each pupil's desires and qualifications personal attention. Thus he learns to know each one personally, to more justly weigh his weakness against his strength, his virtues against his faults, and, instead of the director and

master, he becomes the adviser and friend. And, as the community is neither more nor less, neither better nor worse, than the individual factors who compose it, so the school, as a whole, begins at once to reflect the advantage of the personal care and supervision given by the teachers to such a large number of individual pupils.

As is the teacher, so is the school.

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APPENDIX E.

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REPORT OF HENRY T. BAILEY,  
AGENT FOR THE PROMOTION  
OF  
INDUSTRIAL DRAWING.

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## REPORT.

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*To the Board of Education.*

My time during the past year has been devoted largely to the routine work of the office of agent for the promotion of industrial drawing, the statistics of which are as follows: —

Number of visits to cities and towns, . . . . .	186
Number of different cities and towns visited, . . . . .	97
Number of schools visited, . . . . .	252
Number of addresses, . . . . .	140
Number of institutes attended, . . . . .	17
Number of visits to normal schools, . . . . .	17

The correspondence has increased, and the demands upon my time for conferences with teachers, superintendents and school committees in reference to teachers, courses of studies, schoolroom decoration, etc., have been greater than ever before.

The duties of my office may be briefly stated as included in one, namely, to discover the best in art instruction and to make that known throughout the State. In doing this I have been most happily assisted, as in previous years, by Mr. L. Walter Sargent, who has prepared the following brief statement of present conditions: —

In considering the status of instruction in industrial drawing in western Massachusetts three elements appear which promise to be permanent and to increase in efficiency.

Foremost among these is the growing number of school superintendents. In the past, one of the most discouraging features of the work among the hill towns has been the realization that often there was no one to follow up the suggestions given, unify the work and encourage the teachers to accomplish something in drawing that should be continuous and definite. The near approach of the time

when all towns shall employ a superintendent of schools promises to remove one of the greatest hindrances to progress.

Another encouraging element is the continually increasing proportion of teachers who have had the benefit of the courses at the State normal schools. The teacher who herself has had no training in drawing finds great difficulty in applying occasional suggestions in a field with which she is unfamiliar. With one who has had a general course of instruction in drawing, suggestions from a special instructor readily find their place and practical use.

During the past few years the subject of public art instruction has been receiving earnest attention, not only from the supervisors of drawing but from many persons not directly connected with the public schools. This is a third hopeful sign. The result of their various efforts has been what it should be, — a simplification and not a complication of the subject, and a more practical adaptation of drawing to the needs and conditions of the schools.

The greatest need is of trained supervisors of drawing, who shall bring that personal inspiration which comes only through contact with one thoroughly acquainted with the subject, and eager for a realization of its utility and intrinsic worth. The number of towns employing such supervisors is slowly increasing, and the teaching of drawing in these places has become systematized and valuable. The result of the teaching in such towns makes its influence felt in surrounding towns. The number of trained supervisors available from among the graduates of the Normal Art School increases with each year, and it is to be hoped that with the coming of school superintendents into every district in the State the number of special teachers of drawing will be greatly increased. Where it is impossible to employ a supervisor of drawing, the most practical substitute is a course which is a record of work already tested in various places, and which embodies the best suggestions obtainable.

In country towns, where no special teacher is available yet where systematic work in drawing is attempted, the most promising results are in the realm of nature drawing. There are opened up to the pupils the wonders of plant life. They become acquainted with the exact adaptation of each part to its function, with the perfection of plant structure and the fineness and beauty of its textures and colors. They have practice in the best arrangement of plant forms within given spaces, and in design based on the principles of growth found in nature. Thus, while some things are omitted which a supervisor would bring, still, many common things are observed and interpreted to the pupils which otherwise would have been unnoticed, and a beginning is made which promises enlarged results in the future.

I would most heartily second these words, and would give even greater emphasis to what has been said regarding local supervisors of drawing. It is impossible to estimate the influence for good which radiates from a capable, enthusiastic, sympathetic teacher of drawing, — one who stands in the community for æsthetic righteousness. The supervisors of drawing are as a body more efficient each succeeding year. Many have taken special courses of instruction, — at the Harvard summer school under Dr. Denman W. Ross, in Boston, at the art schools and studios, and elsewhere with teachers of ability along various lines. Several have been active in establishing closer relations between the public libraries and the schools; others have co-operated successfully with the women's clubs in bringing about more sympathetic and helpful relations between people of taste in the community and the children who are being trained to love the best; still others have been giving special attention to the revision of courses of studies in the light of recent information from the advance guard, so to speak, — men and women who are experimenting and investigating in the “advancing margin” of educational life. During the past year both Mr. Sargent and myself have been observing closely these changes in courses, and it has seemed to us advisable to record here a statement which shall embody the latest thought and most promising suggestions of those in daily contact with teachers and children in the schoolroom.

There seems to be a growing conviction that a separate course in drawing or in any other study is a crude, tentative device for use only until the arrival of teachers who understand that not courses are to be taught, but *children*. “One-hour-a-week art,” according to an outline, is no longer the ideal. The ideal is tasteful school work every hour of the day and every day of the week. As the course of adult life is determined by climate, season, event, the exigencies of social and commercial intercourse and the free spirit of individual men and women, overruled by the Power that makes for righteousness, so the course of school work should be determined by the conditions of child life, the individualities of children and the overruling teacher who has high ideals for the future of the race; hence no one rigid course can serve for all. Each teacher, while adhering

to certain general lines of work, must evolve his own specific course in his own school.

The general lines of work now almost universally followed in the Massachusetts schools are five in number, namely, nature drawing, color, pictorial drawing, structural drawing and decorative drawing. That the aim and spirit of the best work now being done under each of these topics may be more widely known, we have prepared the following briefs: —

#### NATURE DRAWING.

Small children, if left to their own choice in the use of a pencil, naturally draw those things which have life. Nature drawing is the representation of life; it is drawing objects as records of the forces that made them and produced in them individual characteristics; therefore it is more than a portrayal of the correct proportions and colors of certain forms.

Nature drawing in public schools has not infrequently been based on the theory that skill of hand was first to be gained, and, when that should be sufficient, the expression of ideas could follow. Results seem to show that children attain greater skill who start with an idea and go to the object for data by which to express the idea more perfectly. For example, if a child draws a cat from memory the result is crude, perhaps more crude than his drawing from the cat itself; but if he draws the cat again from memory in a particular position, as sitting up, his attention having been called to the characteristic features of the cat, so that he may compare them with those in his previous drawing, and this exercise be followed by other memory drawings of the cat in characteristic positions, as eating or asleep, the drawings are likely to be more vigorous expressions of life than those resulting from repeated drawings directly from the animal itself. With each drawing the idea has grown more definite, and the power to image it in different positions has increased. This power to image things as wholes is a necessary element in successful drawing, even when objects are present. Or, again, if a flower is represented as in a high wind, or in a rain storm, or drooping, or holding itself upright, the drawing becomes the expression of certain circumstances in terms of this object. The study of the object precedes the



drawing, instead of accompanying it, and the pupil comes to the object each time with a new capacity for observation. He goes to it with a definite desire for special information, which will aid him in expressing the idea to be embodied in the next drawing.

Such memory drawing of a few typical objects, taken in different positions and under different circumstances, will enable the child to add knowledge to knowledge until he can draw; and the power thus acquired will prove itself to be a strong foundation for future work.

After this primary training, children should be prepared to observe the manifestation of life in the various plant and leaf forms, the tree shapes and the varieties of animals and birds, comparing one with another, noting the marks of individuality in each and the adaptation of form to conditions. At this time the brush with ink or color is especially serviceable as a means of expressing forms as wholes and color effects.

The most valuable work at this period is the drawing of the long dominating lines and larger proportions of objects. Afterwards the characteristics of the different forms of life may be more carefully expressed, using the brush with grays to give the effect of masses of light and dark, as, for example, the relative values of flowers and leaves, or of the upper and under sides of leaves, and with color to give the correct hues in proper relation.

After this it will be helpful to trace the history of the changes of seeds and plants and trees through the seasons, — the cycle of life which the year brings to the plant world. A series of drawings illustrating the history of a seed through its various forms of development from germination to leaf and flower and seed again, will accomplish more, not only in the understanding of nature, but also in skilful expression; for a series of related drawings will sustain a greater degree of interest than the same number of drawings made from unrelated objects.

By the time the pupils reach the seventh grade they should be sufficiently acquainted with the various mediums and their possibilities in producing different effects to decide, as the first question, what medium will most satisfactorily express the object to be drawn. Each successive year's work should show

more careful drawing of detail without loss of the larger truths. In such work the lead pencil is a valuable medium. Indeed, however fascinating it may be, the exclusive use of the brush is likely to result in carelessness and dependence upon accidental effects in place of sincere and thoroughly understood drawing.

During the last two or three years of school the detailed representation of the cycle of life in plant form should be continued; and to such work may be added the drawing of insects. Select a few typical ones, like a dragon-fly, a butterfly or a beetle, and follow so far as possible the changes which the seasons bring to them. During these last years may be introduced the drawing of birds, with careful attention to individual characteristics; the drawing of animals; and pose drawing from the human figure.

#### COLOR.

Works of art into which the element of color enters prove that a well-trained color sense receives the highest pleasure not from the brilliancy of the colors used, but from their proper relations of hue and value. There are intervals and chords of color which give increasing pleasure and satisfaction. To enable pupils to respond to these and to know when colors are in tune and to be able to use colors harmoniously, are the reasons for teaching color in the public schools.

Taking the child's delight in brilliant color as a starting point, he may be led gradually to the perception of those finer qualities of color and to an appreciation of the close harmonies which make possible a more thorough enjoyment of nature and art. The solar spectrum always interests children. They delight in the brilliancy and purity and vitality of its colors and in the merging of one hue into another. It is helpful in awakening an interest in color, and should be a frequent visitor in the schoolroom. The children should be led to discover the spectrum order of colors in such objects as the rainbow, a soap-bubble, ice cracks, a dew drop, iridescent plumage, etc. A list of these illustrations may be made upon the blackboard, and increased as the pupils discover new examples. The children enjoy bringing to school bits of the most brilliant color they can find, — pieces of glass, feathers, ribbon, paper, etc.

In doing this, they discover bright color where otherwise it would have escaped their notice. It is well to make a collection of the specimens which approach the nearest to the easily recognized colors of the spectrum, — red, orange, yellow, green, blue and violet. To fill given outlines of leaves, geometric shapes, etc., with washes of pure color, is a valuable exercise during the first two years.

But this topic includes not only color, but coloring, and deals therefore with pigments and the relations existing between them. A color scale with definite relations is as important for purposes of color study as a musical scale with definite relations of tone is for the study of music. The basis of such a scale may be a group of colors of the same degree of intensity. For purposes of study, the most satisfactory color scale yet produced is made by taking one color, for example, a red of medium intensity, that in value is half way between white and black and in hue leans toward neither violet nor orange, and keying the other colors of the spectrum to exactly the same value and intensity. Taking as a basis these colors thus tuned to a certain key, various relations of hue and value and intensity may be readily and definitely expressed in a series of color scales, and thus a means corresponding to a tuned instrument is available for experimentation in the harmonies and intervals of color. After children have experimented with the spectrum colors, they may be made familiar with these central colors, — red, orange, yellow, green, blue and violet, — arranged in such a scale as has been described. Knowledge of these should be made as intimate as possible by acquaintance with them, by matching them with objects of similar color, and by bringing for comparison objects seen elsewhere that seem to the child to be of the same color. They should be able to recognize also a middle tone of gray half way between white and black.

Later, the intermediate hues should be studied in the same way and grouped with the central colors, and their relations to white and black made perfectly clear to the pupils. Colored papers are helpful in fixing these relations. Units may be cut and arranged in simple designs upon backgrounds of white or black paper, or the units may be cut from black or white

paper and arranged upon a background of a central color. Towards the end of the primary course pupils may become acquainted with the middle tints and shades, — that is, with the tones that in value and intensity stand half way between the central colors and white above and between the central colors and black below.

A practical foundation for future work is laid only when these relations are taught as musical intervals are taught, — not by information concerning them, but by constant comparison of effects, and by producing them till the senses are tuned to them.

At the close of the primary course children will be prepared to study more carefully the relations of values. They may make with water color these scales of three values between white and black through the central color, and scales from white to black by a corresponding number of steps of neutral gray. Designs may be made, in which are used the various values of a single color and of gray. This work may be continued by studying and making scales of values involving three steps between the central colors and white and between the central colors and black, with a corresponding scale of seven tones in neutral gray.

This training in different values of the same color and in equal values and intensities of different colors prepares the way for further study of their relations. Pupils should make scales which pass from the middle point towards white or black through equal variations of value and hue; for example, from red at the middle point upward through orange-red to the right and one step above the middle, then to red-orange two steps to the right and two above, and orange three steps distant from central red; then from central red downwards towards the left through red-violet, violet-red and violet, or diagonally in the opposite directions. Designs may be colored from the analogous scales thus obtained.

Later, the pupils may study complementary colors and values, and the harmonies that may be obtained by the use of both analogous and complementary colors.

Throughout this work it is most helpful to copy and use, in design, fine intervals of color found in nature, fabrics

and other works of art. Careful and long-continued training in studying and making well-related scales of color, and familiarity with the best available color combinations, bring freedom rather than limitation in the use of color, and promote a discriminating taste.

#### PICTORIAL DRAWING.

Throughout the primary grades the work in different lines of drawing, nature, structural, etc., merge into each other. In fact, it should be borne in mind that they are but convenient divisions of one subject. The preparation for one is in part preparation for all.

Two elements enter prominently into any progress in pictorial drawing: —

1. Knowledge of the thing to be drawn.
2. Training in judgment of correct relations of position and proportion, and in skilful use of the mediums of expression.

Every object has a certain vocabulary of expression, which must be known before the best drawing can be produced. A dark mass against the sky in a twilight effect may represent a tree or a rock or a house, according to the emphasis placed upon the characteristics of one or the other. If it is to be a house, any emphasis of the geometric quality of the structure aids in the expression; any blurring of this makes the result doubtful. Therefore, the knowledge necessary for the most expressive drawing of an object is not simply a knowledge of what it is, but the knowledge that can select out of its details the essential elements that make it what it is, — the characteristics of appearance that give it individuality.

Perhaps the most helpful training in this power of observing and expressing the essentials of objects is the primary work suggested under the topic of nature drawing. To the objects suggested there might be added such as a building, a road, a hill, a pond, a path, etc. If the outline of a building is to be memorized, it might well be first the pupil's own house or the schoolhouse with which he is familiar. In the first drawing many children represent not only what appears, but what is inside or on the opposite side. They record what they know

about the house, not what they see from one point of view. Direct criticism of the drawings of small children is of very doubtful importance. Better results seem to be obtained when the drawings are not criticised, but when the child, with the knowledge that he is to try again, takes his drawing to the point of view he selected, and compares it with the object. Corrections, to be valuable, must be made not on paper but in the pupil's mind. The building may be drawn from different points of view and under different conditions, as in summer, or snow-covered, or in the rain, or at night. Thus a set of conditions is expressed in terms of the object studied, and the drawing becomes a language.

Together with the development of ideas should go practice for direct training in skill. Children should know vertical and horizontal and oblique at  $45^{\circ}$ , that a mental standard may be established by which to judge other directions. Splints are excellent material for the practice of slants. The splint arranged upon a piece of paper, as the drawing will be arranged later, can represent vertical and horizontal, and the various slants of a yard stick placed at any angle against the front wall of the room. With two splints, the angle made by the hands of the clock or by the picture cord or by other objects may be easily and accurately represented. By using splints the whole attention may be given to the direction of the lines, and any change or correction may be made at once, without the distraction of erasing. Exercises like these, continually practised and accompanied by illustrative drawing at the black-board, in connection with the other studies of the day, until such expression becomes a habit, together with such work in free movement as is suggested under the topic of structural drawing, will prepare the children for more efficient work in the upper grades.

During the early intermediate years it is difficult to lead pupils to give much preliminary study to the character and proportions of an object. They draw rapidly and in detail, trusting to subsequent corrections. It is of great importance to establish the habit of observing and judging relations as each line is drawn. One helpful method is to continue the use of splints. With them, the plan for a drawing, for example, of

a window, can be rearranged till it is well arranged, and the proportions correctly indicated without the necessity of erasing. The curtain may be raised and lowered, and its different positions shown. The proportions and general shape of other objects, such as a tumbler, chair, etc., may be readily indicated in the same way. The pupil's whole attention is thus given to judging proportions, and the work is easily examined as the teacher passes through the aisles. If such exercises precede the drawing, the teacher may be sure that the proportions and long lines have been studied. The drawing may then be made from the object direct, without any reference to the splints.

During this period children readily acquire facility in expressing the appearance of foreshortened surfaces. Leaves and flowers held in different positions furnish excellent examples. Sketches and pictures of foreshortened objects similar to those which the child is drawing should be collected and studied. A child who observes a good picture of leaves in foreshortened positions and can hold a real leaf in corresponding positions, and by drawing his leaf can obtain results similar to those in the picture, is learning something of foreshortening in the most direct and satisfactory manner.

After a year or two of drawing with emphasis upon correct proportions and upon the representation of forms in various foreshortened positions, the pupil will readily grasp the principles of foreshortening and convergence, for he discovers them in a field with which he is already familiar.

A surface appears its real shape when seen at right angles with the line of vision, and varies from that shape as its angle to the line of vision varies. The farther away things are, the smaller they appear. These are the two great laws which control all perspective effects. While these can be taught easily and logically from the type forms, so that children appear to understand them when so taught, the power of children to use them intelligently as a means of expressing various effects of position and distance seems to be directly proportional, not to their knowledge of the laws themselves, but to the amount of practice they have had in discovering illustrations of these laws in pictures and photographs and in objects. The test of a working knowledge of the principles of perspective is not so

much the power to make a correct drawing from a group of type forms as it is the ability to express correctly the mental image of a given form in any position. The half sphere, the cylinder and the cube illustrate all the ordinary perspective effects, and these should be so thoroughly known that an incorrect drawing of them would, like a misspelled word, be recognized instantly as wrong; for, even when other objects are being drawn, it is to a great extent the criterion established in the mind through familiarity with these types which determines the correctness of a drawing.

Composition is a natural accompaniment of all pictorial drawing. Few rules can be given which prove of practical aid. One learns most by experiment and by familiarity with examples of good composition. After one or two experiments, children readily decide how large a drawing should be to look well on a certain piece of paper, and that is a step in composition. Placing a flower or spray upon the paper and adapting it to the space is also a step. A few experiments in grouping objects, as a tumbler and spoon and half lemon, will show an evident choice in the position of each object. Arrangement of the most common elements of a landscape, as the horizon, hills, trees, houses, rocks, water, roads, etc., affords a good field for practice in composition. Across a rectangle of given size a splint may be placed to represent the horizon, and moved up and down till the most pleasing spacing is secured. It will soon be found that there is a response to certain pleasing proportions of space, not wholly dissimilar to the response to a good interval in musical tones. The space below the horizon may be covered with a wash of ink or color, to more definitely suggest the earth. The proportions chosen when the long axis of the rectangle is horizontal may be compared with those selected when the long axis is vertical. It is suggestive to compare these spaces with those made in similar compositions by good landscape painters. Different elements may be brought in, as the spacing of sky, hill and plain, the angle of the hill, the position of a river, the balance of two trees of different sizes, the spacing of several tree trunks, the composition of a house and road, etc. The work seems to be more valuable, at least at the beginning, if a definite problem is



given out, — for example, the arrangement of two trees of certain sizes and a horizon within a given rectangle. Then the problem becomes definitely one of composition, — not how many varied elements may be introduced, but what is the best possible arrangement of those given. The principles of composition are: first, unity, and second, harmony, which includes fine relations of space, of dark and light and color, and of line.

Progress in pictorial drawing means not increasing power to add bewildering detail, but increasing delight in the thing drawn and increasing power to represent things simply and vividly.

#### STRUCTURAL DRAWING.

Structural drawing is something more than a combination of the elements of geometry, projection and development; it is the expression of ideas of appropriate form and structural beauty in natural or manufactured objects. Skill in structural drawing implies a knowledge of the elements of structural beauty and a perception of the relations which should exist between function and form. “Fine art,” says Hegel, “is the free and adequate embodiment of the idea in a form peculiarly appropriate to the idea itself.”

General ideas of use and knowledge of the elements of structural beauty may be appreciated by children before the power is developed to perceive happy adaptations of form to function; moreover, skill requires something besides clear ideas, — it requires obedient muscles. The first work with children should aim to establish ideals of beauty in the mind, and freedom and precision in the movements of the arm and hand.

The most obvious element of beauty in structure is *unity*, oneness of purpose, thought, spirit, style, the subordination of all parts to the general effect. The simplest and best illustration of unity is the circle, and the first exercise for the pupil should be the drawing of circles at the blackboard, large size, full-arm movement, and in both directions, possibly with both the left and right hands, separately and in balanced co-ordination.

The next step should be to fix indelibly in the very substance of the pupil the vertical, horizontal and oblique (at 45°) direc-

tions, and the perpendicular relations of lines in different positions.

This may well be followed by such "elementary drill forms" \* as the double loop and its applications; the geometric figures, square, oblong, triangle, drawn upon the basis of the foot as a unit, drawn in every conceivable position, singly and in combination; and, lastly, the three abstract curves, — the curve of force, the reversed curve and the spiral, — those central types of consistent unity of movement.

Blackboard practice, which might well occur for a few minutes daily, in all grades, should be supplemented by free drawings upon paper, with soft pencil, crayon and brush.

A second element of beauty in structure is *proportion*, — fitness and harmony in the relation of the measures of the parts. Judgment of units of measure, foot, inch, and of relative lengths of sides in the geometric figures, has already laid a foundation for the knowledge of proportion. During these early years exercises in paper folding will train the power of judging equal subdivisions of areas and lines. Some time about the fourth year the rule should be given the pupil, as an instrument of precision. Such simple forms as weather signals may be cut or drawn freehand until good proportions are secured, and then drawn accurately with the ruler and properly colored. The various cross forms, shields with their bearings, and the geometric figures themselves, offer opportunities for judgment of proportion and for accurate drawing.

About this time *adaptation* may begin to assume importance as a principle in structural drawing. The pupil should be led to think of fitness to purpose, appropriateness in form and color, and adequacy of material. The exercises might include the designing of mounts for pictures, mats for flower vases, penwipers, curtain rings, badges, doorplates, envelopes, pocket-books, and other simple, common objects requiring practically but a single view drawing.

Another element of structural beauty is *curvature*. The early practice of the three type curves will have prepared the way for an appreciation of their application in the design of common objects. An object which possesses unity and good

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\* See "New Methods in Education," J. Liberty Todd. Book II. contains many suggestions for persistent practice.

proportion, and which is well adapted to its uses, may be refined and enriched in form by the introduction of curves which are beautiful in themselves and happily related to the whole mass. Beauty of curvature may be most easily studied, perhaps, from leaf and flower forms, insects, etc., and in bowls, cups, jars and vases. Such forms may be cut in silhouette from paper, drawn with care, by tracing or otherwise, and colored.

In such work another principle of structural design will be discovered, namely, *differentiation*. Parts which differ in function should differ in appearance. The two ends of a spool may be identical, for their office is identical, but the top and bottom of a box should differ in appearance, because one part is crown and one part base.

The representation of the parts of solid objects will soon demand more than one view; the need of working drawings composed of two or more views will become evident, and blue prints or other plans in actual use in the shops may be brought in, that the pupils may learn therefrom the conventional language, and acquire the power to read a working drawing. This may occur during the seventh year. Such knowledge will be utilized in the designing of shelves and brackets, and toys which may be constructed in wood or other appropriate material. During the eighth year, footstools, taborets and tables may be studied from good models, and simple designs may be thought out, drawn to scale, and, where it is possible, constructed in miniature. In the next grade, the objects for study may be cabinets, book cases, desks, etc., and, in connection with these, scutcheons, hinges, lockplates and grills.

During the grammar years the elementary principles of unity and proportion should be thought of as included in the larger law of *harmony*, — the normal completeness and order in the relations of elements to each other and to the whole. During these years special emphasis should be placed upon temperance and restraint in ornament, and upon its subordination to the object as a whole; upon appropriateness in ornamental detail and in technique; in short, upon making evident to the pupil the truth of the proposition that good structural design consists not in the synthesis of ornamental details, nor in the addition of parts merely for enrichment, but in the refinement and enrichment of the essential features of an object.

## DECORATIVE DRAWING.

The aim in decorative drawing should not be merely the drawing of decoration. The aim should be a knowledge of fundamental principles, a trained taste and some degree of skill in producing beautiful ornament.

The early work in decorative drawing is related closely to that outlined under the head of structural drawing on the one hand, and to that under color on the other.

The fundamental principle in all decoration is *order*, — methodical and harmonious arrangement. Order may be of two sorts: rhythmic, as in a Japanese panel or the spaces of a Persian rug; or regular, as in a dentil moulding. First ideas of rhythmic order may be developed through the use of movable units in the form of fish, flying birds, ducks and ducklings, hens and chickens, and the like. These may be arranged in pleasing groups, traced and colored. First ideas of regular order may be developed through the use of flower forms or other units, drawn in colored pencil, or circles, squares and other figures cut from paper or card, spaced agreeably at regular intervals for borders, surfaces or rosettes, then traced and colored.

A second fundamental principle is *consistency*, — compatibility between elements that exist in the same design. This principle may be taught easily by the use of a background regularly subdivided by ruled lines a quarter of an inch apart, over which designs may be drawn upon Japanese or other thin transparent paper. Repetition of elements is the most obvious illustration of consistency; as, for example, a line a half inch in length, repeated now in a vertical position and now in a horizontal, as in simple barbaric patterns; or a square repeated for a checker pattern; or a spiral curving to the right, to the left, and these reversed to form a symmetrical group. In other consistent designs the elements are limited to those having a common unit of measure, as illustrated in the patterns of plaited and woven fabrics. Grotesque animal forms delight children, and may be well used before the more abstract terms which make up such consistent patterns as the Greek frets or the Byzantine mosaics.

The third principle is *symmetry*,—due arrangement or balancing of the parts or elements of a design with reference to one another in making up the whole. When the symmetry is obvious, and one half of a design is the reverse of the other, the design is bi-symmetrical; when the symmetry is occult, and is an opposition of apparent weights or attractions, the design is balanced. Bi-symmetry may be taught best by paper folding and cutting, and most easily embodied in a design by the use of transparent paper. Although the laws of mechanics may aid in the early study of balance, in the last analysis it has to do with attractions rather than with areas, and must be largely a matter of feeling, secured through long-continued observation and experiment. In no other part of the course in design are good examples more in demand than here, in developing a fine sense of balance.

As elements for use in producing symmetry in arrangement, abstract spots are most serviceable.\* They make possible also the graphic teaching of the fourth fundamental principle of decorative design, namely, *harmony*,—the normal completeness and order in the relations of elements to each other and to the whole. Harmony includes space relations, line relations, relations in value and in hue of color. The latter has been considered under the topic color. Harmonious line relations are of two sorts,—agreement and frank disagreement, or flow of line (often called rhythmic movement) and opposition of line (sometimes called contrast). These relations and relations of space may be most clearly expressed by means of tracings in black ink with a brush.

Original spots may be designed by the pupils in the upper grades, from suggestions furnished by plant and insect forms, birds, animals and historic ornament; and the principles may be embodied in designs for word ornaments, printed fabrics, head and tail pieces, book covers, etc., to be utilized in the production of artistic school work in connection with every other study.

That these topics may be seen at a glance in their relations the following tabular view is presented:—

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\* The abstract spot as defined and used by Dr. Denman W. Ross is the most helpful contribution to this topic in recent years.

*A Tabular Arrangement of Topics.*

YEAR.	Nature drawing.	Color.	Pictorial drawing.	Structural drawing.	Decorative drawing.
1	Ideas of growth in leaves, flowers, common animals and birds, developed, and embodied in typical forms, through memory drawing.	Natural order of colors, as found in the spectrum. Washes of pure color. The six standard colors and middle tone of gray. The twelve intermediate hues. Tints and shades midway between standards and white and black. Harmonies of contrast.	Clear images of common objects, as house, barn, pond, path, etc., developed through memory drawing. Practice upon "elementary" forms. Illustrative drawing.	Free movement; circles. Directions of lines, and perpendicular relation. Paper folding. Practice upon "elementary drill forms." Memory drawing of geometric figures and application. Paper cutting. Abstract curves.	Arrangement of drawing upon sheet, for balanced effect. Rhythmic arrangement of movable units derived from animal and plant form. Regular arrangement of units in borders, surfaces, etc.
2					
3					
4	Beauty of line in growing forms. Balance of masses. Radiation of parts from centres of growth. Characteristic tree shapes. The growth from seed to seed through the cycle of the year.	Color scales of three tones between white and black, and corresponding scales of gray. Color scales of five and seven tones between white and black, and corresponding scales of gray. Harmonies of analogy of tone and of hue.	Representation of proportions and of foreshortened surfaces, as seen in leaves, flowers, etc. Study of pictures for illustrations of effects. Elements of good pictorial arrangement. Principles of foreshortening. Memory drawing of foreshortened forms in any position.	Abstract curves. Use of rules for accuracy. Study of pleasing proportions and of adaptation of form to function. Designs for objects involving but one view. Beauty of curvature. Designs for simple objects involving one or two views. Drawing to scale.	Designs with geometric elements, embodying consistent measures. Interpretation of leaf and flower forms into "ornaments," "florettes," etc. Study of principle of symmetry. Applications connected with school work.
5					
6					
7	Beauty in details of growth. Interpretation of natural forms into decorative forms. Interpretation of natural schemes of color into simpler decorative schemes, made up of a limited number of values and hues.	Color scales "upon the diagonal." Fine intervals of color; complementary interval. Harmonies of analogy of both tone and hue; complex harmonies involving the complementary interval.	Principles of convergence studied from pictures and objects. Memory drawing of type forms in any position. Elements of pictorial composition, values. Interiors. Landscapes. Composition in color.	Study of working drawings, to learn to read them. Differentiation and harmony in parts. Study of good examples of applied art. Designs for common household utensils, furniture, etc., and for ornamental details. Drawing to scale.	Designs with abstract spots and with terms derived from plant forms, embodying flow and opposition of line and the other elements of harmony. Applications in surface patterns, panels, rosettes, and in ornamental initials, enclosed ornaments, book cases, etc.
8					
9					

In planning a detailed course for the schools of any city or town, local conditions must be considered. There may be a local art museum, and but little available nature material, or there may be nature material only; the community may be composed largely of fisher-folk or farmers, or mill operatives, or, on the other hand, of people engaged in manufacturing jewelry and silverware. In a community of mechanics the emphasis upon certain topics might not be the same as in a community of salesmen, bookkeepers and retired teachers and preachers. Then, too, certain classes of well-to-do children need much disciplinary drawing and work with tools, while children of another sort need to have emphasized the poetic and imaginative elements.

But, whatever the local conditions, the aim should be to plan the entire school program to secure a rational and vital correlation of studies, and anticipate and create daily opportunities for artistic expression of some sort. The teacher should remember: —

1. That individuality, that precious element in all fine-art work, grows healthily, not only by self-communion but by appreciative study of the work of others. Therefore, special effort should be made to place before the pupil the finest available examples in every department of instruction, that, after he has expressed himself in his own way, he may be shown the better way, and be inspired by appropriate illustrative material.

2. That one topic should lead naturally to another; several topics in drawing should not be considered the same week, unless there is an innate and necessary connection between them.

3. That a few typical things should be taught thoroughly well, for permanent and valuable results are more likely to be obtained through concentration upon essentials.

4. That to trust to luck in teaching, or to strive for "artistic effects," is unwise. Pupils should be led to do whatever they have to do in the most direct, sincere and beautiful way possible, and the result will be, in its realm, an artistic result.

In response to a wide demand for an outline which can be helpful to superintendents and teachers in towns without

special instructors in drawing, Mr. Sargent and I have prepared the following, to present, not logical deductions from a theory, but a line of work in harmony with what is actually being done at the present time under some of the most able supervisors in the State.

The work falls naturally into three groups, — primary, intermediate and grammar. Each successive year in a group repeats to a great extent the subjects and principles of the preceding year, only with the expectation of better results. An outline of work is given in detail for the first year of each group, and accompanied by suggestions for variations in the work of the following years.

The numbers refer to the plates; for example, “II: 5” means Plate II, Fig. 5.

#### PRIMARY.

*September.* — Stimulate the imagination and arouse the interest of the children in some way, for example, by drawing a rabbit upon the board. (I: 5.) Ask the children to show by drawing what the rabbit likes to eat. From the things drawn select one, a leaf, and have it drawn with colored pencil. Discuss results with a real leaf at hand for comparison. Have leaves brought in by the children, studied, then placed out of sight in the desks and drawn from memory. Repeat this several times. Begin the study of the fall flowers, especially the fall dandelion and the aster. Select some one flower, discuss its color and growth and draw with colored pencil. Free practice of circles at the board should accompany the drawing of circular flowers.

On beginning the work of the second year test the ability of the children to draw such objects as they have previously studied, and in free drawing upon the blackboard of circles and straight lines. Test their knowledge of colors, especially of the six standard colors. Review leaf drawing. Have leaves brought in and drawn, using colored pencils and water colors in flat washes. Begin the study of the fall flowers, especially the marigold and asters. Practise the elementary drill forms. (III: 1-7.)

During September of the third year test the children upon work already done, and continue the drawing of leaves and flowers. Lead



the children to express some complex flower, as the golden-rod, by a simple mass. Practise upon the blackboard the abstract curves. (III: 8, 12, 18.)

*October.* — The color should be extended to include autumn leaves, and their colors compared with those of the spectrum. Notice the natural order of colors in the spectrum, and arrange illustrations accordingly.

In the second year compare these with the six standard colors, R, O, Y, G, B, V, and in the third year with the six standard and intermediate hues, OR, RO, OY, YO, GY, YG, BG, GB, VB, BV, RV, VR; and learn the six color groups.

Select simple, brilliantly colored objects, like a rose hip or a sumach leaf with only a few leaflets remaining, or woodbine berries, and have these drawn repeatedly in color with brush or colored pencil, giving attention to shape and size and color of paper and the arrangement of the drawing upon it.

In the second year add to these the drawing of other fall berries, and in the third year fall fruits.

*November.* — Discuss with the children the things which will enter into the preparation of the Thanksgiving dinner. Practise drawing on the blackboard long horizontal and vertical lines, and combine these to represent the table and chairs. Draw potatoes in silhouette with brush and diluted ink. Draw more brilliantly colored vegetables, — carrot, squash, turnip, onion, etc., — with colored crayon, colored pencil or water color. Review colors, and draw again with special attention to the arrangement of the sheet.

During the second year, represent something of light and shade in the colored drawings of the vegetables and in the third year study more carefully the exact colors of the objects. Practise drawing at the blackboard the square in any position during the second year, and abstract curves during the third year. In the second year review carefully the six standard colors and learn the intermediate hues. In the third year review color and become familiar with the middle step between the standard colors and black and white.

*December.* — Begin preparations for Christmas. Select one or two pictures for special study, as Correggio's "Holy Night" and Lerolle's or Muller's "Nativity." These may be mounted, and, with appropriate greetings added, may be used as Christmas gifts. The children may make bookmarks and other forms of paper, which, with appropriate ornamental details, will be suitable for gifts.

During the second year draw pictures of things desired as Christmas gifts, so that Santa Claus could recognize them from the drawings. Continue this in the third year.

*January.* — For the first lesson in the new year, after practice at the blackboard, have the children draw the big round sun and color it bright yellow; it is beginning to conquer again. Make a New Year's flag from paper, of good proportion and color.

Talk about the winter animals and birds. Have the children sketch from memory any of them. Select one, for example, the rabbit, and have it drawn from memory. Discuss results and compare with pictures of rabbits, and, if possible, with a live rabbit. Study the rabbit and draw again and again from memory under different conditions (I: 5), as when it is running, resting, eating, hiding, etc.

During the second year study some other common animal, as a mouse, and make a series of drawings of it. Add a trap as an accessory.

During the third year draw another animal, as the cat. And also a house, under different conditions. Have each pupil select some familiar building, as his own home, and learn to represent it simply.

*February.* — Draw the rabbit in silhouette and cut one from paper. Use in interesting groups in borders and balanced arrangement. A dish may be used as an accessory. (I: 6.) Place an irregular, meaningless spot several inches in size on the blackboard, using the side of the crayon. Lead the children to modify this by additions to suggest animal forms in silhouette (IV: 2), — fish, hen, duck. A dish or appropriate house may be used as an accessory. Make designs with such elements, developing the idea of a centre of interest in a group, as rabbits around a dish or fishes swimming towards a fly.

Continue this work in the other years of the primary grades, using in the second year perhaps hens, the hen house, etc., and in the third year ducks, a duck pond, etc. (IV: 1.)

*March.*— Use these elements in borders, panels and surface patterns, the units to be traced and filled in with color.

Prepare for the coming of spring. Look for the first signs of returning life. Continue practice at blackboard of straight lines, vertical, horizontal and oblique at  $45^{\circ}$  in both directions. Place sprays of pussy willows within a given space, to determine simple and effective arrangements. Have these drawn, using pencil and colored crayon or other appropriate medium. Discuss results and repeat several times.

Review color and begin to fix in mind the six color standards, R, O, Y, G, B, V.

In the second year continue work with the six standard colors and the twelve intermediate hues, comparing them and similarly colored objects with each other and with black and white.

In the third year continue practice with these colors and with their tints and shades midway between the standard colors and white and black.

*April.*— Study the spring flowers in the order of their coming. Make a list. Make sketches in color. Repeat sketches from memory, giving special attention to good spacing within a margin. Let each pupil select some one flower and draw it carefully for use as a unit of design. (IV: 3.) By use of tracing paper or other means, repeat the unit to form a surface pattern. Make a design using one of the central colors with black or white. Repeat using some other flower.

Continue this work through the primary grades, using in the second year a standard color or hue and black and white; in the third year, a color with its two intermediate values, a tint and a shade, and black and white.

*May.*— Begin the study of a simple flower, as the daisy, for its appearance under different circumstances. Draw it in several positions, as full face view, side view, etc. (I: 1-4.)

Review color. Draw the daisy again, using colored pencil. Draw the daisy as it appears in a rain storm. Find out how the daisy goes to sleep.

*June.* — Draw another flower, as the buttercup.

During the second and third years continue the same kind of work, encouraging the children to express more in their drawings. For example, study more carefully the flower's growth, to suggest the grass among which the daisy grows. Wash in a dark background behind the sleeping daisy, to suggest night. Draw three daisies well arranged in a vase; add color. Arrange, trace and color units based on the daisy.

#### INTERMEDIATE.

*September.* — By means of drawings, illustrations and the plants themselves, interest the children in beauty of line in the growth of plants. Call attention to the grace or vigor of movement, the balance of masses and the radiation of parts from centres of growth; *e.g.*, have the pupils sketch the characteristic lines of the plantain with different mediums, — brush and ink, color, pencil. Discuss the results and redraw more than once, until the plant is thoroughly familiar, and the lines of growth characteristic of the plantain may be sketched from memory.

Do similar work in the fifth and sixth years, adding other native plants, such as the dandelion, gentian, etc.

Practise at the board the drawing of curves which express the grace of movement in natural forms.

*October.* — Have pupils draw foreshortened leaves in different positions, with pencil and brush, representing the masses as simply as possible. Repeat from memory. Draw also one or two trees of marked and characteristic shape, — an elm, a pine, an apple. Represent first in brush and ink, and when typical shapes are memorized, use them in simple landscape compositions. For example, within a given rectangle place the tree upon a hill side, so that the three masses, tree, sky, ground, shall be harmoniously related.

In the fifth and sixth years the upper and under sides of leaves may be represented by grays or colors in scale relation. In the fifth

year continue the development of definite tree images, and in the sixth add those of buildings,—a church, a house, a barn, and of a pond, a brook and a path. The effects of using different tones of gray in different dispositions of darks and lights in the same composition should receive attention.

Review previous work in color.

*November.* — Draw the common vegetables singly and in groups, with special attention given to spacing and to rendering in harmonious tones. For example, a bowl with apples, in which the tones of background, foreground and objects shall be in scale relation; as apples, central, red; background, black; bowl, intermediate shade of red between central and black; foreground, intermediate tint of red or gray between central and white.

During the fifth and sixth years continued work along these lines should lead to better appreciation of fine space relations and more beautiful harmonies of value and color.

*December.* — Review the square in different positions; teach oblong and triangle. Begin drawing these accurately with ruler. Study simple geometric forms, such as the crosses, shields, etc., and apply some of these in making Christmas tokens. Plan Christmas cards, using small-sized pictures combined with appropriate texts or memory gems.

During the fifth year compasses may be introduced and the circle drawn and cut with other geometric figures, in harmonious sizes. Mats with openings cut to fit certain Christmas pictures, and simple objects, such as reels, curtain rings and table mats or doilies of ornamental form, may be designed and drawn, and made of appropriate material. In the sixth year space division may be emphasized and folding mounts or simple triptychs might be made, and bowls and cups designed and drawn in top and side views, special attention being given to good proportions and beautiful curvature.

*January.* — Continue the structural drawing in designing and making calendars for the new year. Little calendar pads may be purchased and used in connection with appropriate pictures, emblems and lettering.

The sixth-grade pupils might design a perpetual calendar and construct it, using cardboard for the frame and tough paper for the movable parts.

By means of splints, give pupils practice in arranging upon a sheet of paper correct representations of the proportions of objects. For example, a waste basket, tumbler, water pail, tin pan, the picture frames in the room, the windows with curtain sticks at various levels. Pupils need frequent practice in rapid and correct representation of proportion itself. Drawing with pencil might alternate with this representation of proportion by means of splints.

In the fifth year the pencil and the brush might be the means of expression. Proportions and characteristic masses should receive chief attention. In the sixth year begin the study of foreshortening in hemispherical objects. Have the pupils describe and draw from memory a hemispherical bowl in different positions. Discuss the drawings, compare with the bowl and draw again from memory. Draw other similar objects.

*February.* — Review previous work in color. Study a scale of three intermediate tones between black and white in grays and color. Make these scales in water color.

In the fifth and sixth grades increase the scales to five tones between black and white, and interest the pupils in observing and copying fine intervals of color in nature and the arts. In the sixth, analogous scales may be introduced.

Groups of objects arranged decoratively within given spaces may be outlined with pencil and filled in with tones of one color and black or gray or with grays in scale relation. The study of pictures showing similar conditions will be found helpful.

*March.* — Review previous work in design, rhythmical and regular order of elements, and balance. From illustrations and sketches teach consistency in the measures of a design. A paper may be accurately ruled into one-fourth inch squares, and upon tracing paper placed over this designs may be

evolved, using elements of identical measures, as lines of equal length, squares and oblongs of equal area, or elements which may be completely measured by any given unit, as, for example, a quarter inch. Use colored pencils and the brush and ink or color.

In the fifth grade abstract curves may take the place of straight line elements; and in the sixth, emphasis may be laid upon bisymmetrical and radial arrangements of such elements, either in rosettes or repeated over a surface.

*April.* — Study the spring flowers as they arrive, representing them in water color. Try various arrangements within oblongs of different proportions, using ink silhouettes. Select some one flower and draw it repeatedly, until its manner of growth, characteristic pose, and details are well known.

In the fifth and sixth grades two or three common seeds — pea, bean, squash — may be studied and planted, and a series of sketches started which when completed shall show successive stages of growth through all the seasons. These may be in any appropriate medium.

*May.* — Continue studying the spring flowers in their order. Study in detail two or three flowers which the children enjoy, and draw them until the children are able to make from memory sketches which embody the typical characteristics of the flowers.

*June.* — By means of sketches and other illustrations show how ornamental flower forms are evolved from natural forms. Have such terms designed by the pupils and used in simple, orderly and symmetrical patterns, florettes, rosettes, etc. Have these worked out in three tones of one color or in one or two tones with black or white.

In the fifth grade five or seven toned scales may be used; and in the sixth, a seven toned scale or fine intervals of closely related colors with black or white.

#### GRAMMAR.

*September.* — Make a study of the autumn plant forms, — fall flowers, fruits upon the branches, as pear, apple, grape,

etc., giving greater attention than in previous years to details of growth. Draw these from memory, noting and comparing individual characteristics, using the most appropriate mediums of expression. Give special attention to balance in arrangement of sheets.

In the eighth year, and more especially in the ninth, colors and values should be represented in definite scale relations.

*October.* — Make a study of richly colored autumn leaves, as sumach, maple, etc., in sprays; trees with characteristic autumn colors; and also of the interesting flower stalks and seed pods, like the primrose, milkweed and mullein. Draw these from memory, and make careful drawings in lead pencil, from the object, for their exquisite beauty of proportion and curvature.

In the eighth and ninth years pupils should be able to produce drawings having greater refinement and more harmonious coloring.

*November.* — Review the elements of landscape. Give definite problems in landscape composition. For example, within a given oblong arrange harmoniously a hill, a house, a tree, or several trees and a pond. Make harvest landscapes. Compare with famous pictures. Upon some good composition experiment with different schemes of tones in scale relation, to determine the most satisfactory arrangements.

In the eighth year emphasize rhythmic space relations; and in the ninth, the securing of given effects, as sunset, night, a storm, etc.

*December.* — Review the typical curves, and recall applications in nature and the arts. Study illustrations and examples of good applied design in common useful objects, tools, table ware, etc., and make accurate working drawings from some approved object. Design a cup, vase or other utensil. The material, form and ornamentation of each object should be determined in the light of its nature and use. Make the attempt to have a few of the best designs worked out in appropriate material.



In the eighth and ninth grades study one or two household articles and work out designs for them, to scale ; for example, a stamp box, a cabinet or book case with metal trimmings, or a hall seat, or piece of office furniture. These should be as central types, in the working out of which the principles which underlie all good design of a similar nature will become evident to the pupil.

*January.* — Make full-size drawings for another common object of use and beauty, or for ornamental details of some object previously studied or designed. Relate the study to historic work of similar character. Review the representation of hemispherical objects, and continue the study of foreshortening, using cylindrical objects. The aim should be the ability to image and draw such objects in any position.

In the eighth year perspective effects should be studied from rectangular objects ; and in the ninth, perspective principles should be embodied in studies from interiors and in out-of-door effects.

*February.* — Study grouping of objects, using pictures, sketches and the objects themselves. Make drawings from groups decoratively arranged within given oblongs, using appropriate mediums. Continue practice in analogous color scales of seven tones between white and black. Continue copying fine intervals of color from nature and the arts.

In the eighth and ninth years apply color scales and other fine intervals of color in coloring the sketches from interiors and in out-of-door effects.

*March.* — Review previous work in design. Give the pupils two sets of "terms" for use in the evolution of designs to embody flow and contrast of line and balance of mass. Have designs worked out upon tracing paper with ink. Later the designs may be redrawn and colored in some consistent scheme of color ; as, for example, a middle tone of one color with a tone above and to the right and a corresponding tone below and to the left.

In the eighth and ninth grades more complex terms may be used and more intricate patterns evolved. Use historic ornament as illustrative material, but not for exact reproduction.

*April.* — Study and draw in pencil the spring flowers as they arrive, giving special attention to beauty of detail. In the lower grades the emphasis was upon naturalistic representation; in these grades it should be upon the semi-decorative treatment of plant form. For example, draw the plant form in outline. Eliminate all unnecessary detail and preserve whatever is characteristic of the plant in its growth and form. Interpret the many values and hues of color which appear in the plant, into a simpler scale composed of a limited number of distinct perfectly related tones.

*May.* — Continue studying the spring flowers, interpreting them decoratively. Design original ornamental flowers and sprays built up of elements whose form and combination are suggested by natural plant forms.

*June.* — Apply these elements in designing surface patterns for draperies, decorative papers and other printed fabrics, ornamental initials, head and tail pieces, book covers, etc. Study the best obtainable examples of applied design with harmonious color schemes, and use these as suggestions in coloring the original designs.

In the eighth and ninth grades during these months, demand more tasteful results. Emphasize especially the complementary interval of color. Let the designs be for covers for school work, — nature papers, history or geography or literary essays; and for the graduation programs, or the annual school report.

The results of such an outline should be: acquaintance with the beauty of nature and with the best examples of pictorial, structural and decorative art; ability to draw common objects with some degree of facility and correctness; ability to recognize amid a mass of detail the essential features which constitute a characteristic whole; knowledge of the principles of design, and a well-trained sense of good arrangement, adequate form and harmonious coloring.

The supervisors are beginning to recognize the need of illustrative material in the line of the arts and crafts. Local museums, containing examples of applied art, — good printing, book covers, wall papers, carpets, rugs, hangings, vases, household hardware, wrought iron work and the like, — will

soon be established in cities and towns where at present nothing of the sort is available for reference.

The Massachusetts Normal Art School's collection is growing, and the Industrial Art Teachers' Association has taken steps to help extend a knowledge of the best things.

Another hopeful sign is the awakening interest among the women's clubs of the State, as evinced by the following extracts from a circular recently published by the State Federation: —

“The arts and crafts movement is significant for its recognition of the dignity and importance of the craftsman as artist and producer.” It dates from the time (about 1848) that a group of English artists, called the Pre-Raphaelite Brotherhood, revolted against the conventional and mechanical.

The subject of handicraft is a very broad one, because it is as old as the earliest efforts of primitive man to provide shelter and clothing for himself. Leader Scott writes: —

From need of clothes came —

Weavers.	Artistic development:	{ Embroideries, Tapestries, etc.
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From need of weapons and tools came —

Iron workers and Armorsers	Artistic development:	{ Gold work, Casting, Engraving, etc.
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From need of houses came —

Builders, Stonemasons, Carpenters, etc.	Artistic development:	{ Architecture, Sculpture, Painting, etc.
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For many years the increasing use of machine-made articles has tended to shut out the products of the individual craftsman, and we are in danger of losing not only much beauty and fitness in household belongings and dress, but we are losing something of far deeper significance, — the influence in the world of the happy, contented artisan, of those men and women who have dexterity of hand guided by intelligence and love of the artistic to create beautiful and useful things for house furnishings and personal use and ornament. A renewed and growing interest in handicraft in its various manifestations is one of the encouraging signs of the times, not only from the æsthetic point of view, but also from the industrial, because we are beginning to recognize the existence of the artisan, the creator of the

things we admire. Since women are almost exclusively the home-makers and buyers, conscientious study of the subject by them is in the nature of "noblesse oblige." It is hoped that the following suggestions, though by no means exhaustive, will, nevertheless, be helpful in bringing the club women in close touch with what appeals strongly to us from the sociological and artistic standpoints.

The arts and crafts movement in this country differs from that in England, because its promoters and students recognize that in this age of machinery the blessings and comforts it brings, especially to people of moderate means, cannot be ignored. Handmade work, whether individual or by village industries, must be more expensive than that produced in factories. The problem, then, is, how to bring just recognition to the artisan and his creative powers, so that machinery shall not eliminate him from the industrial world. Machinery has brought much evil design and ornamentation into the market, but this is not a necessary condition. Buyers can gradually bring a change, by organized demand, adhered to by individuals, for good designs and appropriate ornament.

Even the people of moderate means can occasionally indulge in some hand-wrought article, if their money has not melted away in buying inexpensive knickknacks that pleased for a time, but have become tiresome because they lack intrinsic merit. At this point we plead for earnest consideration of our homes. Are the decorations beautiful, and the furniture of good design and well made? Do we believe in rooms whose walls are spattered with pictures of questionable merit in ostentatious frames, the chairs burdened with useless "tidies," the tables with embroidered centre-pieces of bad design and worse colors? If in place of the bewildering accumulation of inartistic dust-gatherers we could bring about more of the Japanese ideal of well-adorned interiors, the arts and crafts problem would receive a tremendous impulse toward solution. Simplicity in taste is not an expensive luxury. Its dictates more often lead to judicious expenditure than to buying unworthy trifles with which to crowd our rooms. Can we not bring about a revolt against the too prevalent inartistic embroidery upon which so many women are wasting time, eyesight, nerves and substance?

#### VILLAGE AND FIRESIDE INDUSTRIES.

These have been started in impoverished farm and mountain districts, and are proving successful in a number of cases. They must be run upon business principles and guided by an artist mind. These two fundamentals combined with patience, enthusiasm and some capital, and there is nothing to prevent a carpenter's shop from becom-

ing the nucleus of an artistic furniture industry, or a village forge from turning out artistic iron work for domestic purposes.

In order to be intelligent buyers, and to distinguish between good and bad handicraft, a knowledge of design is needed, and very much needed. Design should be harmonious in itself, conforming to utility. It may be of form, as in a chair, or of pattern applied to space, as in a sofa cushion, etc.

Ornamentation does not always mean beauty. There is too much of it already, poor in character and applied indiscriminately. Pattern or ornament should not seem to be added to an object, but to have grown out of the surface, to belong to it simply and naturally. The most beautiful ornament, though inspired by natural objects, is conventionalized. (Note the influence of the lotus plant running through much of the best historic ornament.)

The public needs education in these matters. Lectures will do much, especially in arousing interest in the subject. The following methods of progress are suggested to the clubs: —

a. Encourage the individual craftsman. He exists as truly to-day as in earlier times.

b. Encourage village and fireside industries.

c. Study your own localities, and help to bring recognition and patronage to good handmade things.

d. Bring pressure to bear upon the manufacturers by refusing to buy unworthy products.

e. Demand good material and honest workmanship.

f. Exhibitions, under club auspices, of local handicraft, or from established industries, will arouse interest and promote co-operation. Let us remember, in fostering such exhibitions, that handicraft is not always good, and village and fireside industries not always worthy of recognition.

g. Let us not demand or encourage elaborate designs in these products, but keep them consistent with their material and locality.

The hope for the future, after all, lies with the children. Drawing and manual training ought to develop taste and power to do, if they are not dissociated from the expression of an idea. What are the schools in your localities doing? The tendency is to teach the pupil to see correctly and to reproduce, but not to *feel* or to *create*. The æsthetic sense is neglected. A proper system would include appreciation of the inflection of lines, the proportions of form and the feeling for color.

Young children have a great deal of instinctive good taste. If two sorts of curves should be drawn upon the blackboard, and they be asked to say which they prefer, in most cases the majority would be

found to select the more beautiful. Part of the time should be devoted to contrasts, which would awaken the child's interest in differences, and discovering the beautiful as compared with the ugly. The seeds of an æsthetic taste would be planted, to remain with the greater number through life. Do your teachers of drawing forget that in putting the finished product of historic ornament before their pupils for emulation they are demanding of immaturity what was gradually evolved by slow growth through generations of men belonging to the most artistic nations the world has known? If the children can be encouraged to *create* designs from a few simple units, we may indulge in high hopes for the future of our national art. The study of historic ornament will show us that this was its course of development. Here is material for consultation with the educational authorities.

The circular gives the following list of books, relating more or less directly to the arts and crafts, some of which may be consulted with profit by teachers of drawing:—

Line and Form, by Walter Crane. Bases of Design, by Walter Crane. Geo. Bell & Sons, London.

Historic Ornament, by Jas. Ward. Chas. Scribner's Sons.

Nature in Ornament, by Lewis F. Day. Some Principles of Everyday Art, by Lewis F. Day. Batsford, London.

Elements of Handicraft and Design, by William A. S. Benson. Macmillan.

Arts and Crafts Essays, by members of the Arts and Crafts Exhibition Society. Longmans, Green & Co.

The Training of a Craftsman, by Fred Miller. Virtue & Co.

Art and Formation of Taste, by Lucy Crane. Macmillan.

The Decoration of Houses, by Wharton & Codman. Scribner.

Some Minor Arts as practised in England. Published by Seeley & Co., London.

Renascence of the Irish Art of Lace-making, by Alan S. Cole.

Dante Gabriel Rossetti and the Pre-Raphaelite Brotherhood, by Holman Hunt. Fortnightly Review, vol. XLIX, pp. 471, 737, 820.

Sketch of Hubert Herkomer, by W. C. Courtney. Art Annual 1892.

Japanese Homes and their Surroundings, by Edward S. Morse.

In Acadia. Published by F. F. Hansell & Bro., New Orleans, La.

Grammar of Ornament, by Owen Jones.

Grammar of the Lotus, by Wm. H. Goodyear.

Life of William Morris, by J. W. Mackail.

William Morris, his Art, by Aymer Vallance.

Decorative Art, by William Morris.

Hopes and Fears for Art, by William Morris.

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The exhibitions of the Arts and Crafts Society of Boston will be a potent factor in this movement. Their salesroom\* should be visited by all supervisors of drawing, especially by such as have money to spend for school museums. The public libraries of the State are allies, furnishing reference books liberally to both teachers and pupils. The librarians are invariably cordial in their attitude towards public school work, and their co-operation is of inestimable value.

But chief among the inspiring friends of the cause of applied art in the schools stand the Museum of Fine Arts in Boston, within reach of eastern supervisors and teachers, and the Springfield Museum, with its valuable Horace Hale Smith collections, accessible to those in the western counties.

The collections in the Boston Museum of Fine Arts are, in some respects, unrivalled elsewhere in this country; yet they are hardly known to the public, and certainly not appreciated by the supervisors and teachers of drawing. The museum authorities are not only willing but anxious to be of service in public education. Through the kindness of Gen. Charles G. Loring, director, I am able to present herewith a series of plates which will suggest the splendid material there available. A collection of such plates as these is desirable in every grammar and high school, in sufficient quantity to enable teachers to give class instruction upon any particular form of structural design.

The few examples of our fast-vanishing colonial utensils should be secured for museums. Photographs should be made from colonial mantels, doorways, porches, windows and other details, and these done into half-tones for use in the schools. Some of the beautiful modern work, details of our churches, libraries and office buildings might be utilized in the same way. We must not rest satisfied until we have made the most of what we have.

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\* No. 14 Somerset Street, Boston.

The State exhibition of drawing in the fall of 1899 has had a salutary effect upon art instruction throughout the State. It stimulated supervisors, encouraged teachers, revealed points of strength and weakness in our courses and initiated thoughtful revisions.

During the past year a profitable institute for drawing teachers was held at the State Normal Art School, mention of which will be found in the report of the secretary of the Board. I believe that institutes of a similar character would prove beneficial if held in other sections of the State, especially in towns far removed from the larger centres of art influence.

Respectfully submitted,

HENRY T. BAILEY.

NORTH SCITUATE, MASS., Dec. 31, 1900.



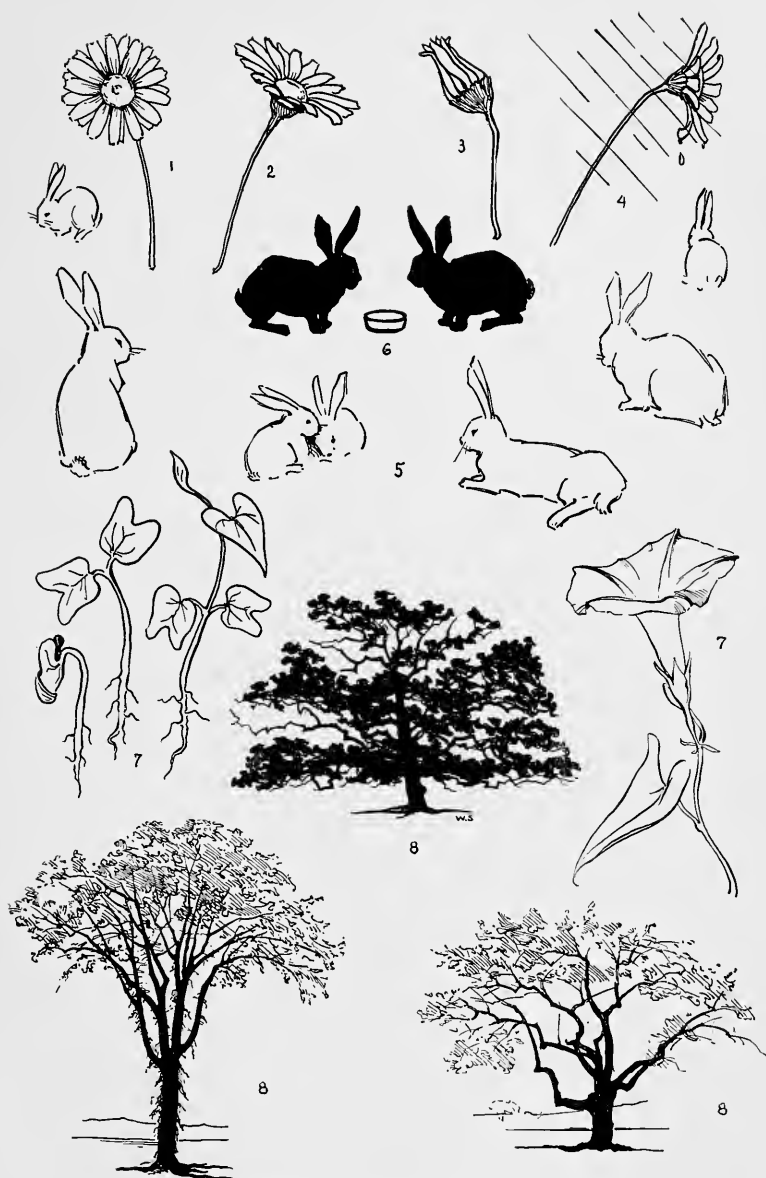
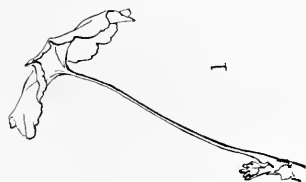
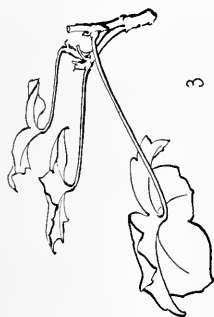


Plate I. — Nature Drawing





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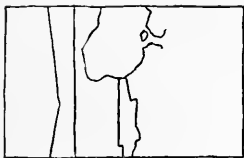
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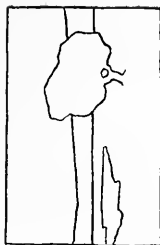
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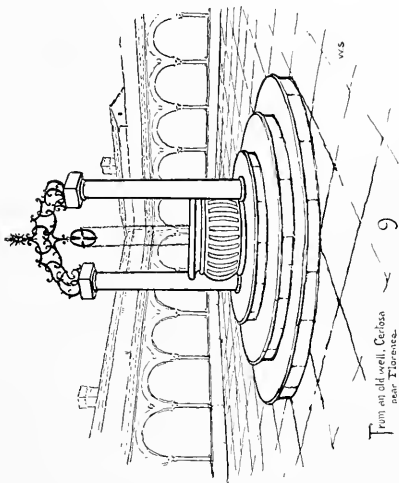
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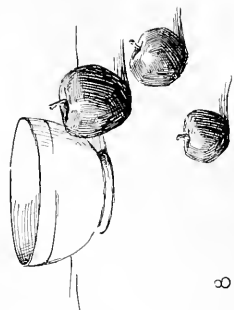
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Plate II. — Pictorial Drawing.



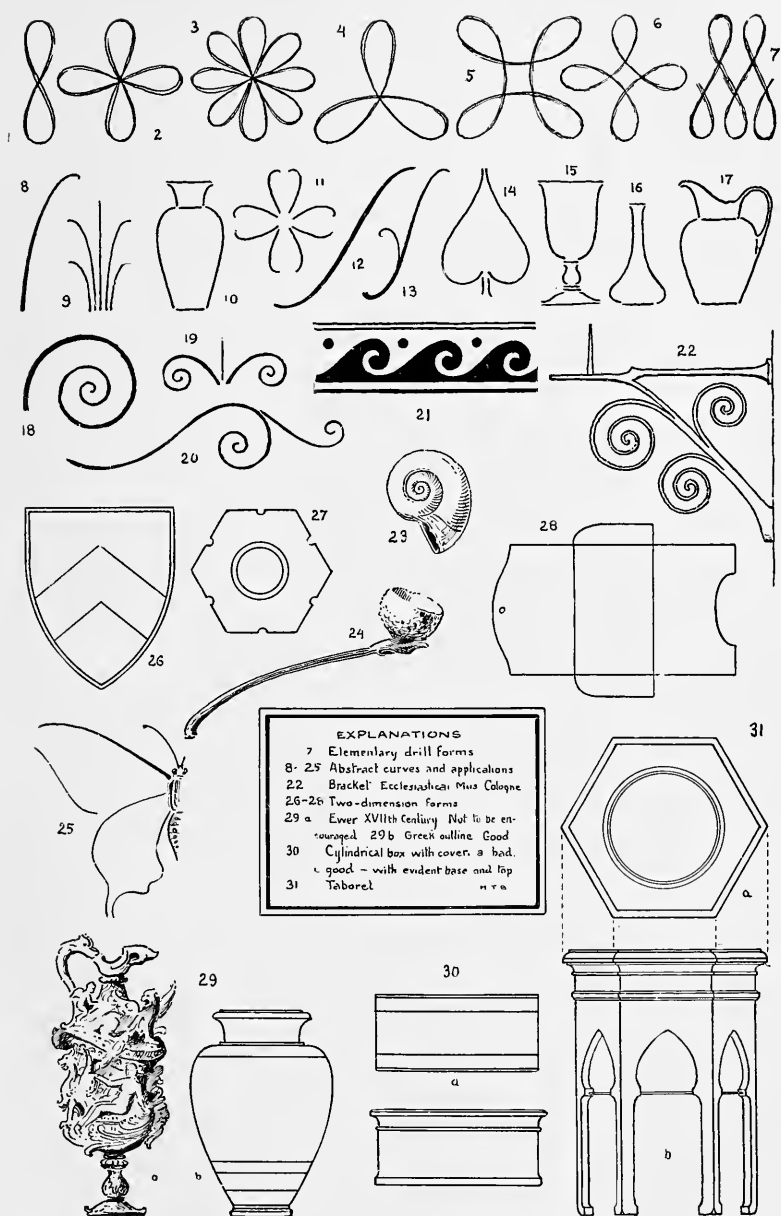


Plate III. — Structural Drawing.





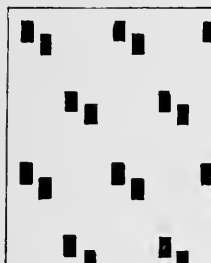
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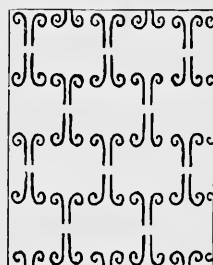
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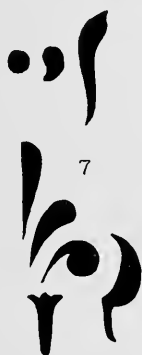
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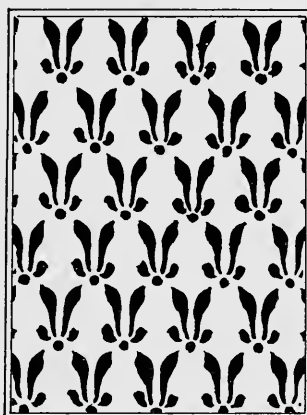
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From 13<sup>th</sup> c. mss. British Museum.



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Plate IV. — Decorative Drawing.





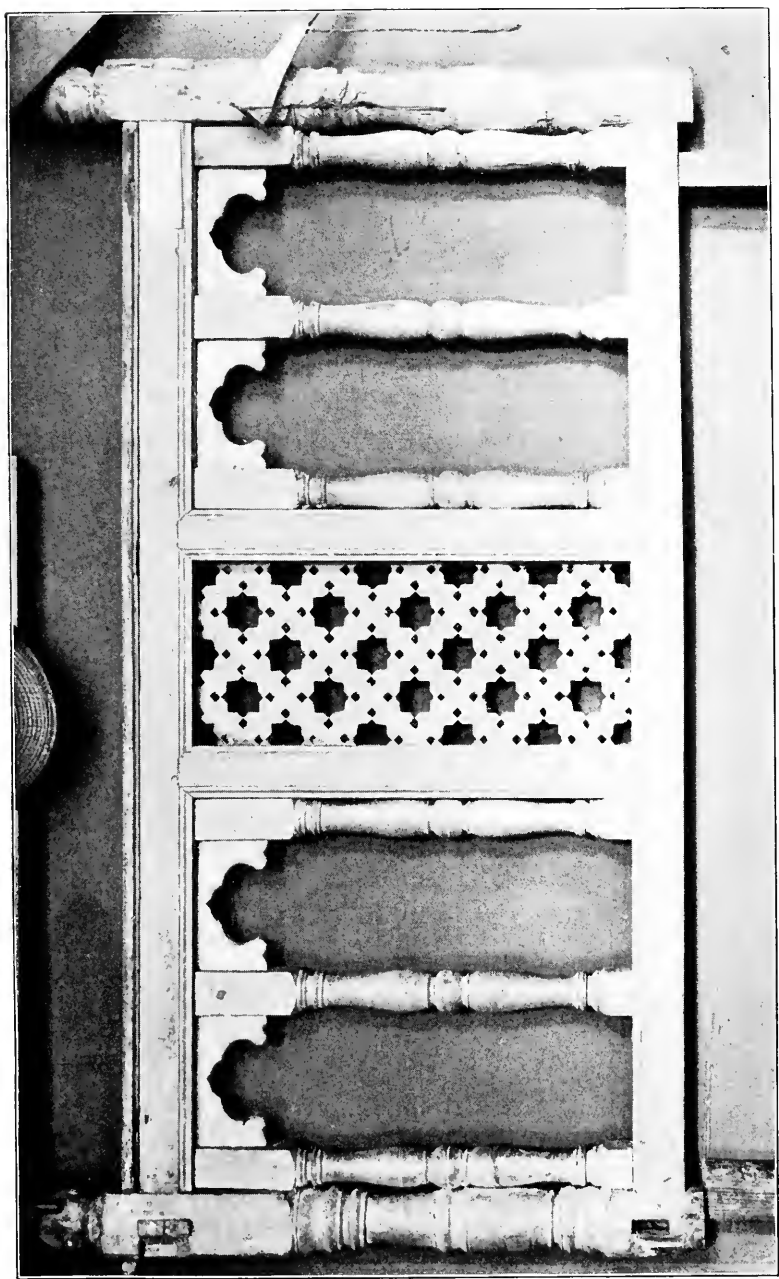


Plate V.—An Arabic balustrade of wood.





Plate VI. — An Arabic panel of wood



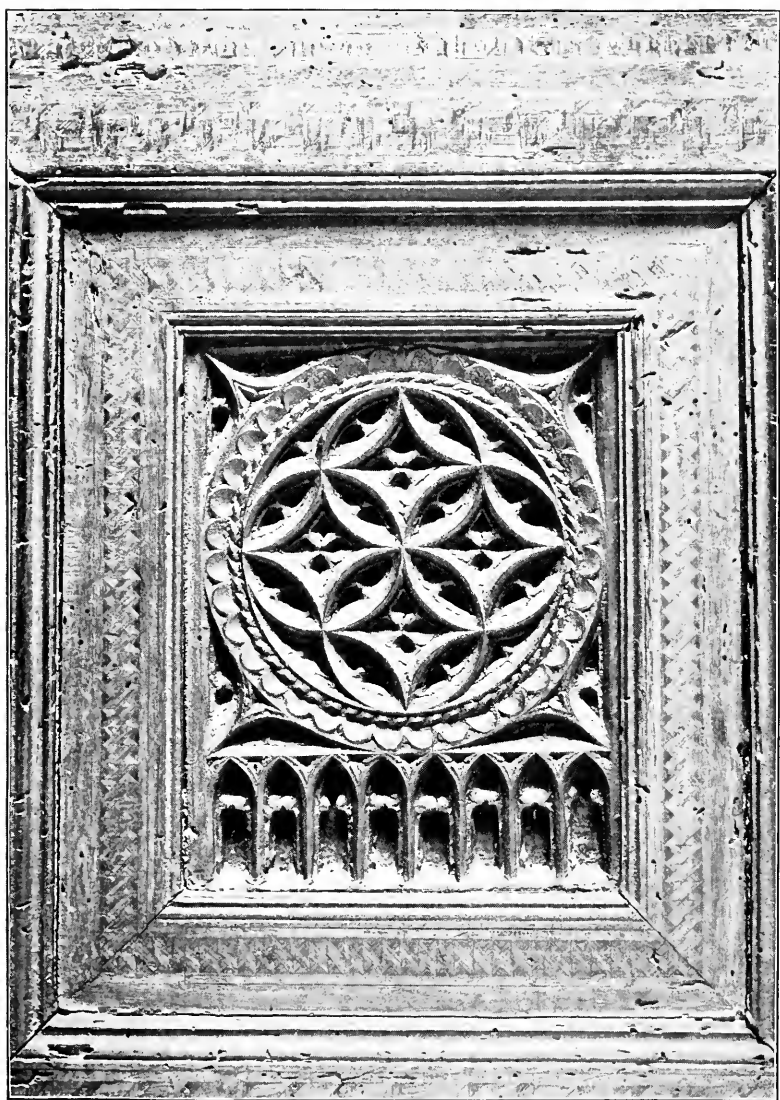


Plate VII. — Carved Panel from a marriage chest, Venetian, XV century.



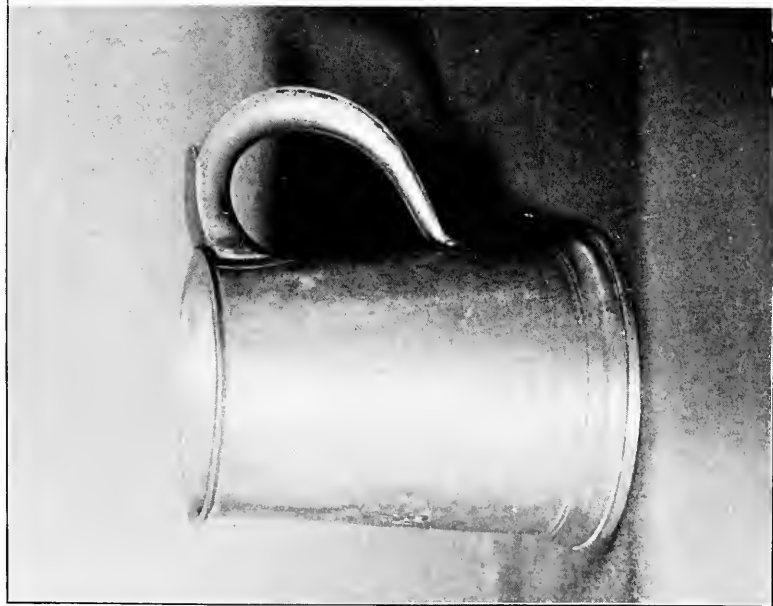
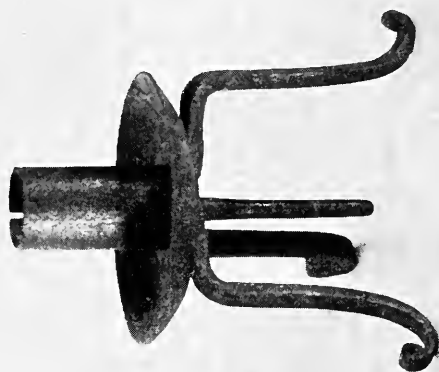


Plate VIII. — Pewter tankard, English.



Wrought iron candlestick.







Plate IX — Silverware. Spoon, Old German. Pitcher, English, 1780. Spoon, Filigree handle. Small pitcher, English.





Plate X.—Brass. Persian candlestick. Indian teapot, Cashmere.



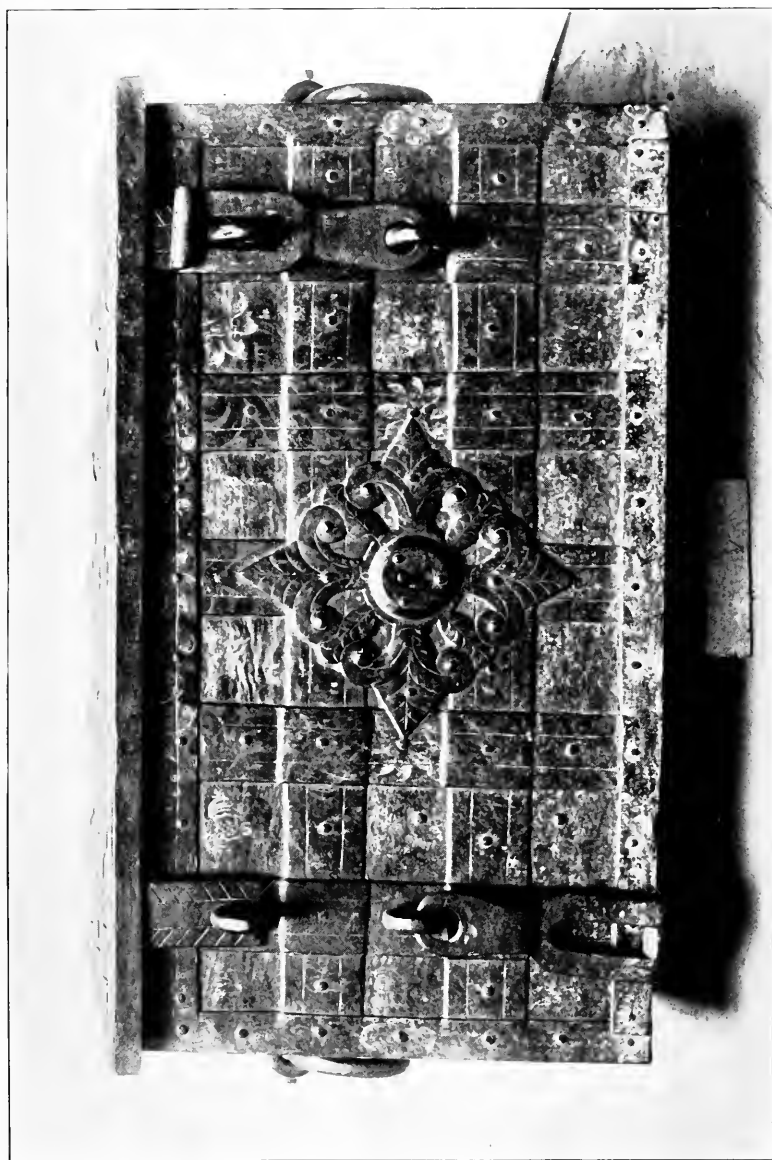


Plate XI. — Iron treasure chest, XVI century.



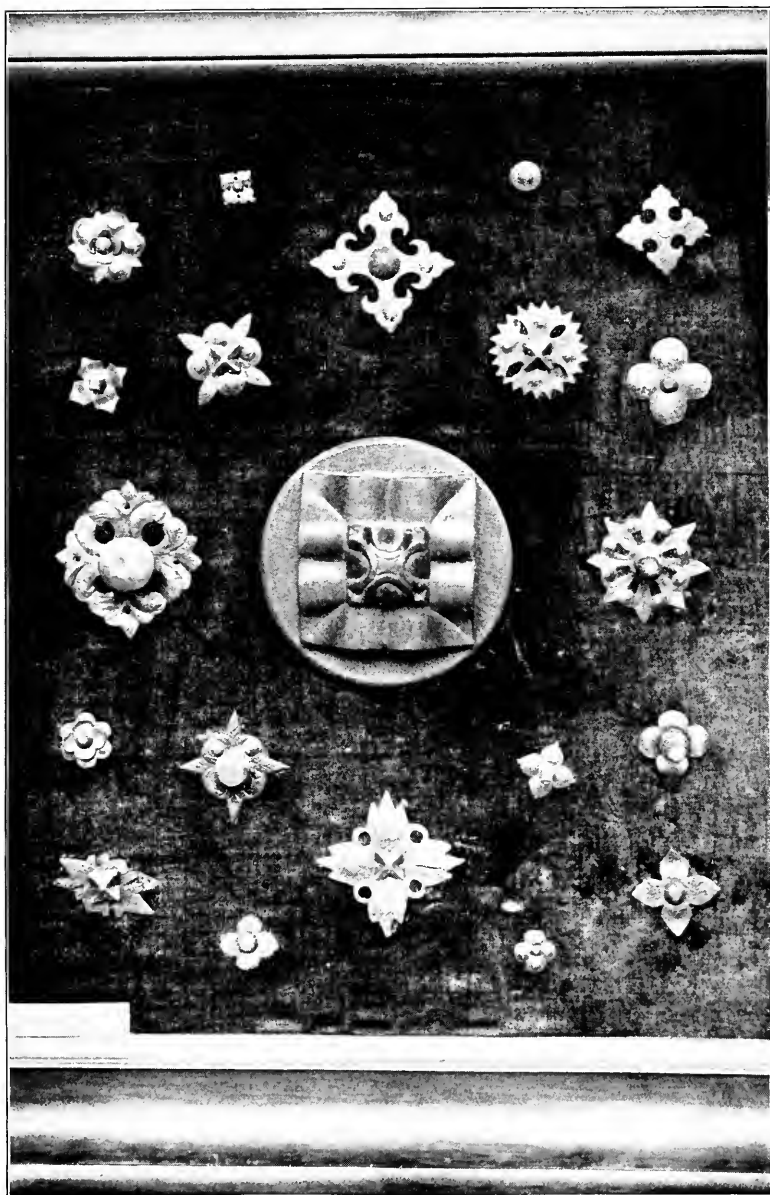


Plate XII. — Ornamental nail heads of wrought iron.





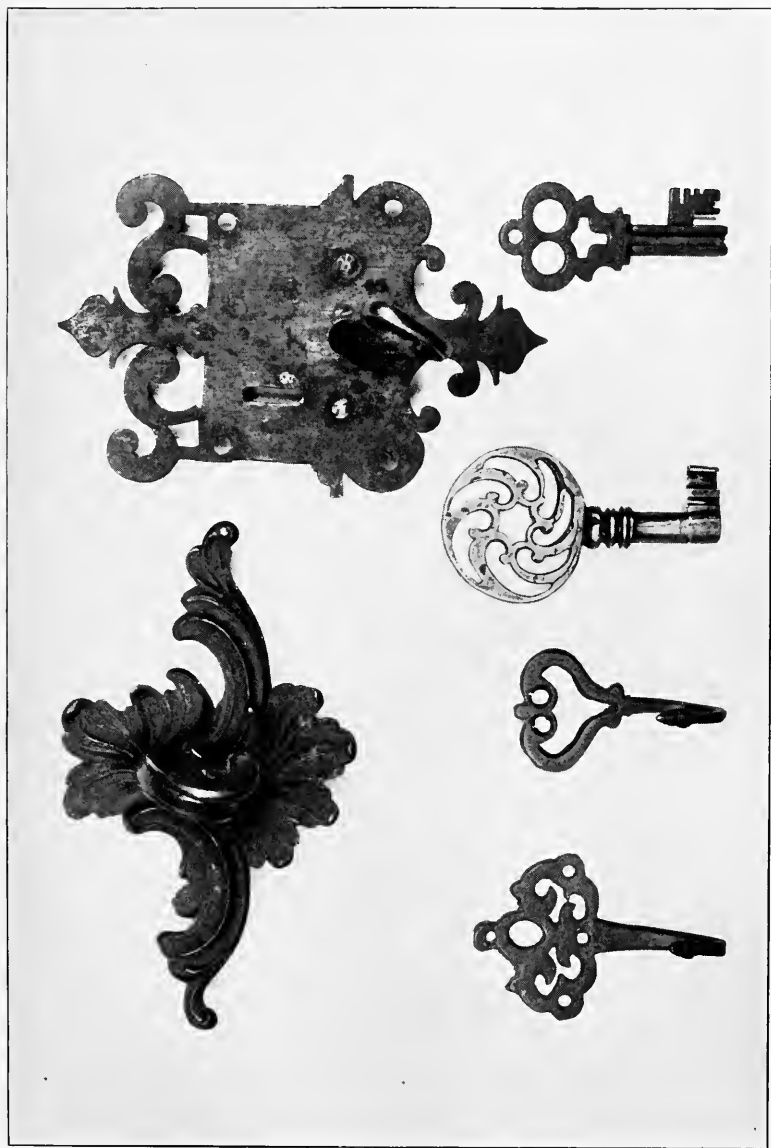


Plate XIII. — Handle and hooks, Belgian (?). Lock and keys, Spanish-American



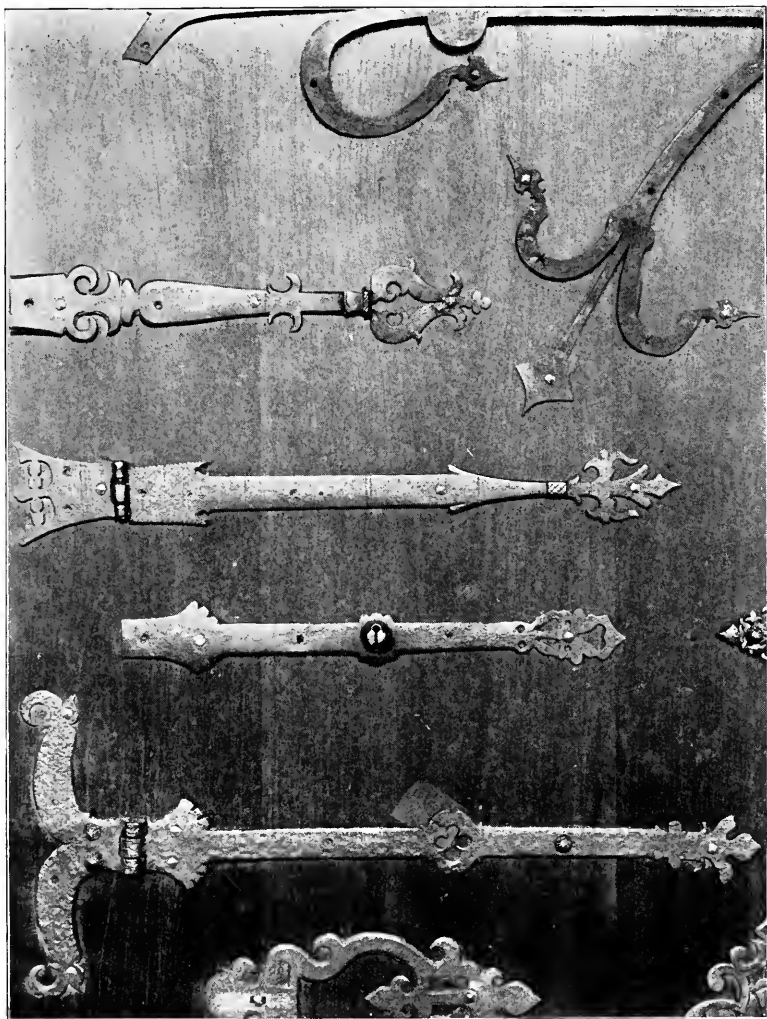


Plate XIV. — Wrought iron hinges, probably of medieval workmanship.



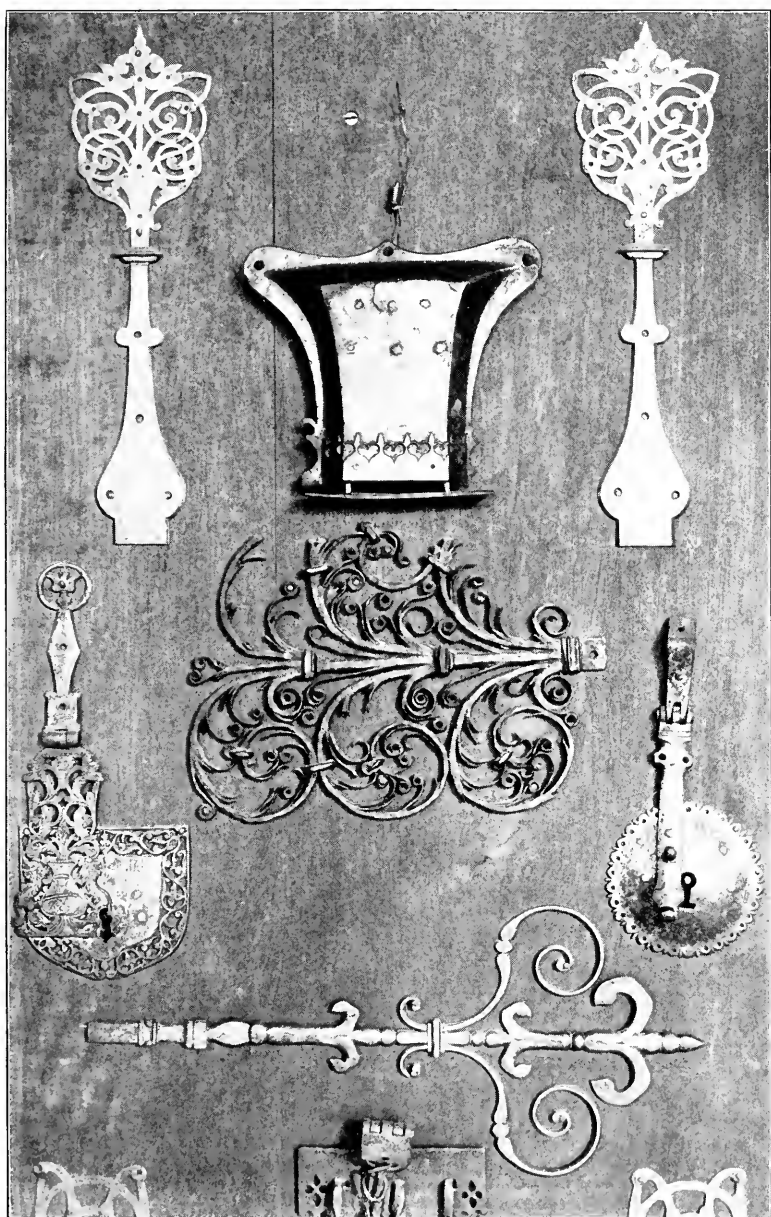
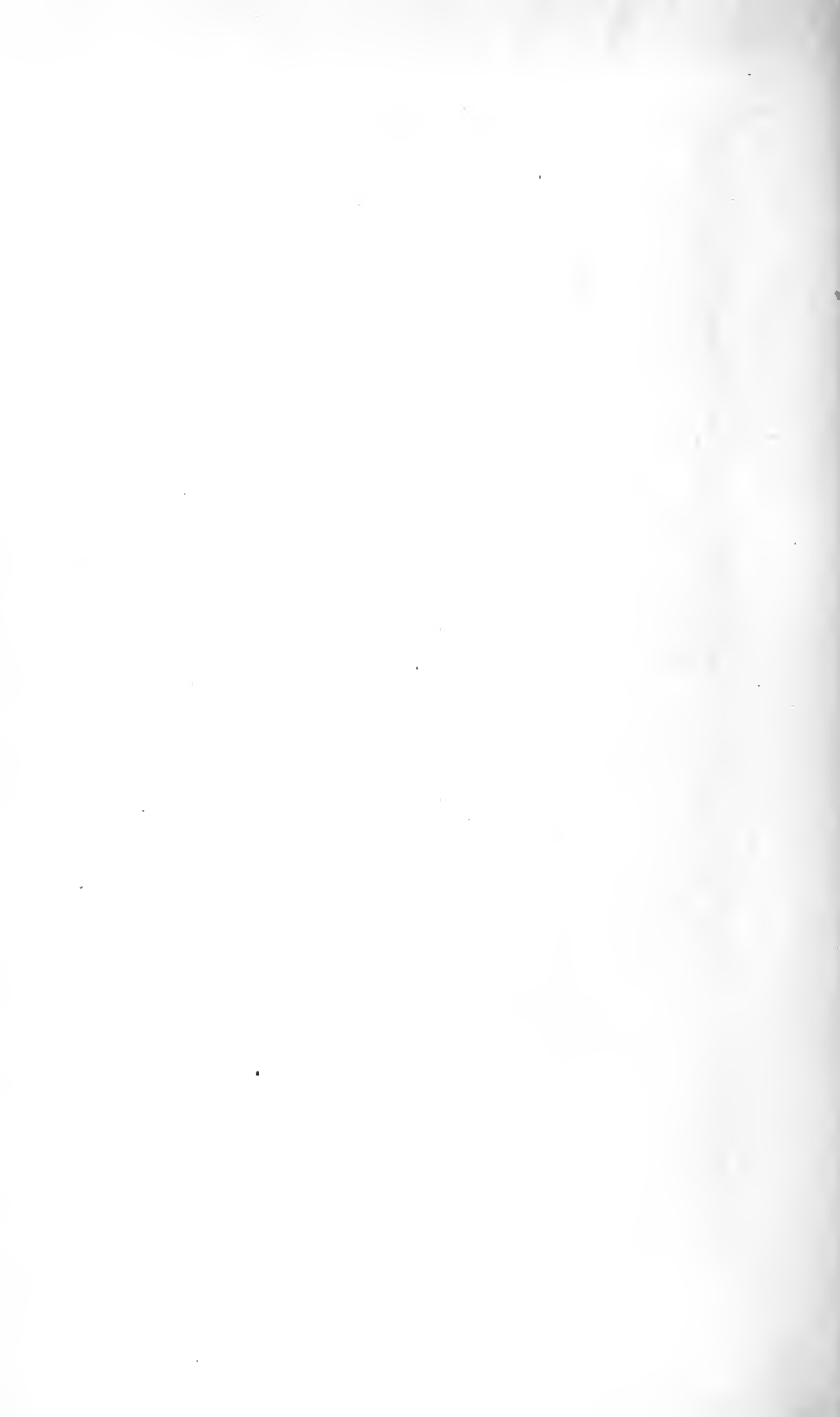


Plate XV — Wrought iron hinges and locks, probably of medieval workmanship.



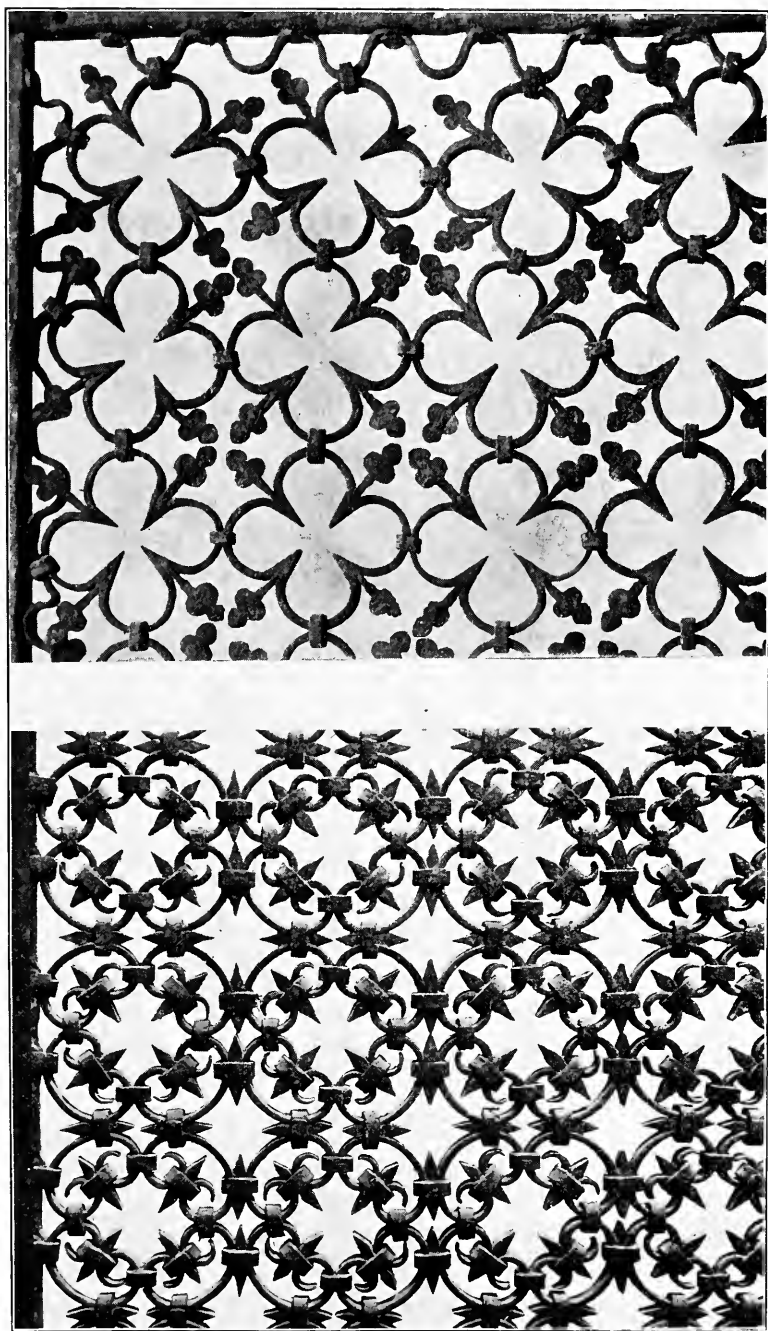


Plate XVI. — Balustrade of wrought iron, Venetian, XVI century. Portion of a wrought iron door, Venetian.





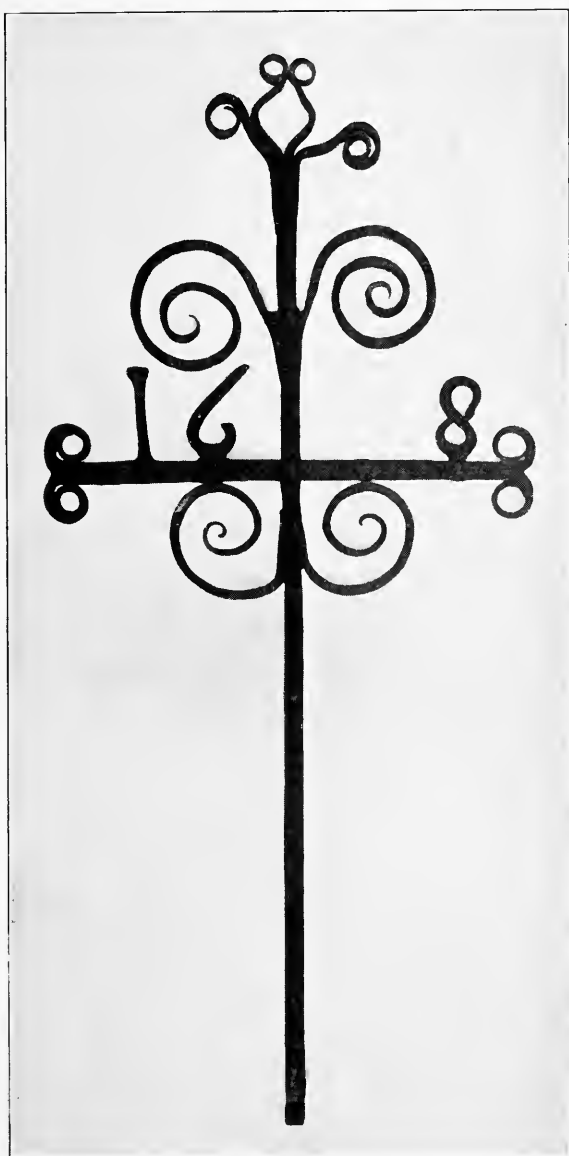


Plate XVII. — A finial of wrought iron, with date 16-8.





Plate XVIII. — Brackets of carved oak, Belgian (?).



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APPENDIX F.

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REPORTS ON SPECIAL SCHOOLS.

COMPILED BY THE SECRETARY OF THE BOARD.

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## SPECIAL SCHOOLS.

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"Every institution for the instruction of the deaf, dumb and blind, when aided by a grant of money from the State treasury, shall annually make to the Board of Education such a report as is required, by sections sixteen and seventeen of chapter seventy-nine, of other private institutions so aided." (Public Statutes, chapter 41, section 15.)

It is the policy of Massachusetts to make schooling as free for educable children whose defects forbid their attendance upon the public day school as for their more fortunate fellows.

The following is a list of the special institutions to which such persons may be sent upon recommendation by the Board of Education to the Governor:—

1. The American School, at Hartford (Conn.), for the Deaf, JOE WILLIAMS, L.H.D., Principal.
2. The Clarke School for the Deaf, Northampton, Miss CAROLINE A. YALE, Principal.
3. Horace Mann School for the Deaf, Boston, Miss SARAH FULLER, Principal.
4. Sarah Fuller Home for Little Deaf Children, Medford, Miss ELIZA L. CLARK, Matron and Principal.
5. New England Industrial School for Deaf Mutes, Beverly.
6. The Boston School for the Deaf, THOMAS MAGENNIS, Superintendent.
7. Perkins Institution and Massachusetts School for the Blind, Boston, M. ANAGNOS, Director.
8. The Massachusetts School for the Feeble-minded, Waltham, WALTER E. FERNALD, M.D., Superintendent.

For a statement of the number of pupils in each of the foregoing institutions, the last one excepted, whose schooling is paid for by the State, with the State's expenditure therefor, see pages 312-314 of this volume.

REPORT OF THE COMMITTEE OF THE STATE BOARD  
OF EDUCATION ON THE DEAF, THE BLIND AND  
THE FEEBLE-MINDED.

The committee of the State Board of Education on the deaf, the blind and the feeble-minded submits the following report : —

The eight special schools to which the Commonwealth pays money for the instruction of defective children are divided into three classes, of which that for the deaf is the largest. This class includes the American School at Hartford, the Clarke School at Northampton, the New England Industrial School at Beverly, the Horace Mann School in Boston, the Boston School for the Deaf and the Sarah Fuller Home at Medford.

*Sarah Fuller Home.* — The Sarah Fuller Home is conspicuously a home, because its inmates are a few little children of kindergarten age. The school was started by private enterprise, and is excellently administered. In addition to its value to those immediately concerned, it is of large importance to the State, as proving the increased ability of the deaf mutes to talk when their education in lip language is begun thus early.

*Horace Mann School.* — The Horace Mann School is the only one of the above-mentioned group which is exclusively a common school, thereby being in direct line with the public school policy of the State. By retaining, however, its pupils throughout a longer session than that of other day schools, it approaches many of the advantages of a home, and is under most admirable management, with Miss Fuller as principal and a devoted corps of assistant teachers.

Three features in its instruction are noticeable : —

1. Increased attention to the modulation of the voice, which has resulted most pleasantly. The oral method is the only one employed, and as each child, each day, is taught by several teachers, he acquires greater ease in understanding lip language when he comes out of school than if confined while there to a single instructor.

2. The industrial work of the school, the means for which is largely contributed by friends.

3. The co-operation of the parents of the pupils with the teachers, a parents' association having been formed, which



meets frequently, and to which physicians have lectured on the mechanism of the vocal organs and of the ear, and on the need of bodily health. To these lectures can be attributed much of the co-operation of parents with teachers.

There is one lack at the school, in our opinion a serious one. There is no yard where the children can play. They walk up and down the streets with their teachers at stated times, and have frequent gymnastic exercises in the course of each day. But this gymnastic exercise should be largely increased, to compensate for the lack of outdoor play. It is only this year that even the walking has had a lengthened number of minutes extended to it, the whole period of outdoor exercise as a school still being not more than ten minutes.

*The Boston School for the Deaf.* — Of the five home schools, the Boston School for the Deaf is the latest in regard to its establishment. The oral method is the only one taught, and its teachers rank with the best in the State. The school building is very satisfactory in its educational equipment and its sanitary conditions. There is abundant opportunity for outdoor play. The home accommodations of the children are simple, economical and healthy. At present they are housed in the upper room of a building near the school, and doubtless will long continue to be so accommodated.

*New England Industrial School.* — The New England Industrial School at Beverly, organized in 1876, is seriously handicapped by lack of means. The children are comfortably housed and well cared for, but their schoolrooms are inadequately provided with proper facilities for teaching. The oral method is taught, though natural signs are also used. Considerable farm work is done by the boys and housework by the girls. The principal, Miss Swett, is untiring in her efforts for her pupils, who are healthy, happy and bright under her care.

*American School for the Deaf.* — The American School at Hartford has greatly modified its original educational methods, for the oral method is now the one chiefly employed. The changes in the buildings have been in the direction of health and comfort. The housing and teaching of so many children under one administration has a marked effect in the increased facility of the children to understand the lip language of many

rather than of a few persons. Pathetic stories of helpfulness are therefore very numerous. All the children regard the principal as their confidential friend.

*Clarke School for the Deaf.* — The Clarke School at Northampton is superior to many other schools in beauty of location and in the individual home atmosphere. This home feeling is largely due to Miss Yale. The instruction and discipline are unequalled. We have never seen a school in which there was less mark of the institution as the opposite of the home, while few homes exceed this one in quietness and pleasantness of demeanor.

Your committee would respectfully present two suggestions in regard to this group: —

1. That each school should keep a record of the health and longevity of its graduates, in order to ascertain whether or not the mental strain of such schools, necessitated by their very conditions, is greater than in other schools. The amount of effort that is exerted by deaf pupils in their acquisition of speech alone is very large, compared with that of hearing children. Moreover, each deaf pupil has to obtain an amount of self-control and to develop a sense of responsibility for his future which other children attain much later in life.

2. That the noticeably feeble-minded deaf pupils should be as a separate class in one or other of these schools, and that epileptic children should be removed from them all.

*Perkins Institution.* — The schools for the blind, including the kindergarten, are in vigorous condition. The self-support of the blind is steadily increasing, and the standard of their education has greatly advanced. The freedom of their movements and the vigor of their minds are surprising, their recitations often surpassing in minuteness as well as in grasp of relations the lessons heard in seeing schools, while the graduates are more and more finding varied opportunities for self-support.

*Massachusetts School for the Feeble-minded.* — The School for the Feeble-minded, psychologically, is of great interest. The economy of its arrangements and the outdoor facilities for health and occupation are unsurpassed. The farm at Templeton is being improved by the adult “improvable” pupils,

which has consequently given space at Waltham for the accommodation of some fifty new inmates, little children, most of whom will have to be always supported. The need of perpetual State supervision to check the progeny of feeble-mindedness raises questions too large for this brief report. But your committee would call attention to the fact that, though this school was established primarily as a school, it has been inevitable that it must become a permanent home for its children. Public opinion tends more and more to State prevention of the marriage of the feeble-minded.

The education of the present pupils, from the training of their motor faculties, as in picking up a pin, to concerted action in building brick walls, is admirably conducted. There has been in the past a slight tendency in the school proper to carry book instruction further than was directly available with future industrial occupation. This tendency, we are glad to state, has been eliminated. We know of no institution where the inmates contribute in more varied ways of non-complex action to their own happy support. They call it "The Fun Home."

Respectfully submitted,

E. H. CAPEN.

K. G. WELLS.

G. H. CONLEY.

THE AMERICAN SCHOOL, AT HARTFORD (CONN.), FOR  
THE DEAF.

REPORT OF THE PRINCIPAL.

The whole number of pupils in attendance for the year 1899-1900 was 163. Of these, 10 came from New Hampshire, 9 from Vermont, 63 from Massachusetts and 81 from Connecticut. The number of admissions was 29 and there were 3 readmissions.

The year was a prosperous one, good progress having been made in all departments of the school. The method of instruction was in the main the same as in the previous year.

The general health of the pupils was good, though there were in the spring epidemics of mumps and measles, a few of the latter proving severe, but all recovered without experiencing any ill after-effects.

Two notable resignations came at the end of the school year. Miss Margaret C. Greenlaw, after forty-nine years of most efficient service, during the last twenty-nine of which she filled the position of matron, resigned to enjoy a well-earned rest. At the same time Miss Mary A. Mann, after forty-five years of successful teaching, also resigned. They had filled their positions so long and so well that they seemed to be almost a part of the school, and they are greatly missed.

Extensive changes in the grounds and buildings have been made. The primary building, begun in the fall of 1899, was completed and occupied in September, 1900. It is of brick, commodious, well lighted by day and by night, provided with the latest sanitary arrangements, and up to date in all its appointments. It is lighted by electricity and heated by steam. The building will amply accommodate 60 pupils, with the necessary officers, teachers and servants. The six schoolrooms are all on the first floor, and the second floor contains all the dormitories. The kitchen and dining room are in the well-lighted basement. All the arrangements for meals, sleep, school and play are made with special reference to the health and comfort of the little folks. Their playground is separate from that of the older pupils.

During the summer vacation the old shop buildings, the first

of which was erected in 1822, were torn down, thus furnishing more ample playgrounds for the pupils and much improving the appearance of the premises. Temporary arrangements for the shops have been provided in what was the playhouse.

In the summer vacation also the steam-heating arrangements under the various parts of the building were removed, and a central steam plant, which furnishes ample heat to all the buildings of the school, was established, — an arrangement safer, more satisfactory, and expected to be more economical.

JOB WILLIAMS,

*Principal.*

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## THE CLARKE SCHOOL FOR THE DEAF, NORTHAMPTON.

### REPORT FOR THE CORPORATION.

*To the Massachusetts Board of Education.*

The number of pupils in the Clarke School during the past year has been 148. Of these, 124 were supported by the State of Massachusetts, 8 by Vermont, 7 by New Hampshire and 1 by Connecticut. The number of paying pupils was 6. There were no pupils regularly graduated from the school at the end of the year. The health of the school has been fairly good, and the excellence of instruction quite equal to that of previous years.

The gymnasium, built, equipped and presented to the corporation by Mr. and Mrs. E. W. Gilmore, North Easton, has been in use for a part of the past year. An exhibition of physical training was given in this building at the time of the meeting of the corporation, in June, at which Mr. and Mrs. Gilmore and other friends of the school were present. There was something particularly touching in the regularity and harmony of the performance in obedience to commands known only by watching the lips of the instructor. That the harmony was absolutely perfect cannot be claimed, but the general excellence of the co-ordination elicited great praise.

In considering the relation of the pupils supported by the State in this school to the State itself, the question might be raised whether the payment made by the State was an act of charity or one of justice to its deaf wards. The attitude assumed

by earlier nations was one either of indifference or cruelty to deaf children. The Greeks and Romans regarded them as worthless, and it is plain, from intimations in the Pentateuch and the Psalms, that the Hebrews were inclined to treat them with contempt and abuse. The attitude of Christ, of whom it was said, "He maketh the deaf to hear and the dumb to speak," has been the influence producing a marked change in social and governmental relations towards these unfortunate children. The striking attainments of Laura Bridgman, Helen Keller and others have made it plain that many deaf children are possessed of high mental qualities. The difficulty of teaching such children and the costliness of their instruction possibly have led many to think that all instruction of the deaf is a charity. It may indeed be true that the developed powers of the average deaf child cannot have the same efficiency for good or evil as the trained child in possession of all senses may have. But, even if deaf children as a class are regarded as inferior in promise to normally endowed children, and not likely fully to repay to the State the expense of their education, it may still be questioned whether education is not owed to them as truly as to the more fortunate. The property, whether real or personal, of a deaf person would not be exempt from taxation. It would seem, then, in a general system of education paid for by the State, that the deaf child should be included. The fact that deaf children or the families in which they belong do not, as a rule, own much property, does not alter the reasonableness of this position. It may be asserted that the public school system generally provides for the best education of the children of those who pay small taxes, and are not able to secure excellent training with their own resources. In this respect the difference between the two classes of children is only one of degree.

The better service that an educated voter may render the State, as well as the value of education for all citizens, is a chief ground for the maintenance of the great public school system of which Massachusetts is proud. But a deaf person is not by reason of his deafness debarred of the right of suffrage, and, though this class may seem too small and of too little influence, if uneducated to-day, to do the State much harm, the principle

of democracy is against the exclusion of any reasonably intelligent man from a share in the election of public officers. If the deaf man is to have the right of suffrage, it is simply justice to him that he be so trained that he may exercise that right wisely ; and this is also justice to the State itself. The education of the deaf would seem on this ground not to be charity.

It may also be affirmed with certainty that the principle that the modern State should recognize a duty to care for all its members, and a duty not less imperative to help and relieve as far as possible those limited and suffering in any respect, is well established. Nor does the fact that these children are so scattered that payment for their training is better made by the State treasury than by localities alter the relation. The question then arises whether, if the State is bound to educate each deaf child as far as possible, the costliness of the training changes the nature of the act. It would be difficult to establish that the amount expended has any effect in changing the principle of the act from one of justice to one of charity. It may be true that the gathering of these children from all parts of the State into a central home and the separation of them from their parents for consecutive months puts them more under the personal influence of teachers than are the children of the common school. But for deaf children, if the teachers are skilful and self-denying, this is no loss. For the acquisition of speech, it cannot be doubted that the collection of such children into a common home has advantages. In the Clarke School the exhaustive work of teaching articulation and lip-reading is confined to certain hours for the regular teachers ; but supervisors are employed to be with the children in the hours not specially assigned to school work, to speak with them and encourage them in the use of speech.

Furthermore, the deaf children of the State are so scattered that many of them must be collected into a central home for instruction. The large number of such pupils renders classification according to ability and attainments easy, and thus facilitates the training. The importance, then, of the maintenance of such a school as the Clarke School, if the State is to do its duty to its deaf wards, would seem unquestionable. The corporation of the Clarke School, believing that the training of

deaf children in such a school is neither charity nor philanthropy, but a simple act of justice due these children from the State, would now raise the question whether the Commonwealth should not take upon itself a larger share of the actual cost of the board and education of such children. Two years ago the amount paid by the State annually for each pupil was raised to \$225. The actual cost to the corporation of each pupil has for some years been about \$300, for the last year somewhat above that figure. Every additional equipment, like the new gymnasium, proves an additional expense. The care, heating and lighting of the building, and the pay of a teacher of gymnastics, are the main items, but in a school of one hundred and fifty pupils might easily add \$6 per pupil to the annual expense. In view of the fact that the munificence of John Clarke, the founder of the school, has enabled the corporation to expend more than \$250,000 for the deaf of the State since the foundation of the school, for which no return has been asked, is it unreasonable, now that the annual receipts with the closest economy are some \$3,000 less than the expenditures, to ask the Commonwealth to advance the price paid for each pupil to \$250? This will still be \$50 less than the actual cost of each pupil to the corporation.

Holding, as we do, that the education of the deaf should be regarded as essentially a part of our educational system, an additional reason for more generous support from the State may be found in the fact that in this school, as one of the two earliest in America to adopt the oral system, many teachers have been and still are trained who carry the blessing of this method to the children in the different schools arising in the newer States. In other words, the Clarke School sustains much the same relation to the training of teachers in the oral method for the deaf that our normal schools sustain to the training of teachers for the ordinary public schools.

The corporation of the Clarke School respectfully requests the Board of Education, in view of these principles and facts, to increase the payment by the State for the school and home privileges of each of the State pupils to \$250 per year.

All of which is respectfully submitted,

FRANKLIN CARTER,

*President.*



## HORACE MANN SCHOOL FOR THE DEAF, BOSTON.

## TERMS OF ADMISSION.

Any deaf child over five years of age, not mentally or physically disqualified, is entitled to admission. No pupil will be admitted without a certificate of vaccination, signed by a physician.

Parents or guardians desiring the admission of children as State pupils can obtain the blank form of application, and other instructions, at the school, No. 178 Newbury Street, or at the office of the secretary of the State Board of Education.

Children from other States will be received, subject to the above conditions, on the payment of tuition, or upon warrants from the executives of such States.

The school year begins on the second Wednesday in September, and ends during the week preceding the fourth of July, but pupils are admitted at any time.

Communications and letters may be addressed to the principal, Miss Sarah Fuller, No. 178 Newbury Street, Boston.

## REPORT OF THE COMMITTEE ON THE HORACE MANN SCHOOL.

The Horace Mann School is a public school, established and maintained by the city of Boston, and free to all its deaf children. The Commonwealth pays the tuition of deaf children who attend the school from other parts of the State. From the annual report made Nov. 13, 1900, by the committee on the school, Francis L. Coolidge, chairman, Emily A. Fifield, Elizabeth C. Keller, John A. Brett and Willard S. Allen, to the school committee of Boston, the following extracts relative to the introduction of the kindergarten and to the manual training work of the school are especially interesting.

*Introduction of the Kindergarten.* — “ Kindergarten methods of meeting the requirements of children who are not deaf seem, in nearly every respect, equally adapted to the needs of little deaf children; and the desire to give to these handicapped children opportunities which others have, led your committee to select, last January, a thoroughly trained kindergarten teacher of experience for work with beginners. The results of this teaching have shown that deaf children, as a rule, are

more observant than others, and are, therefore, able to follow directions quickly and accurately, and that in original work, when they are allowed free use of pencil, clay, and construction blocks, they possess commendable skill. The testimony of the parents to the value in their homes of these added means for self-dependence is most gratifying. The children find occupation and amusement at home in ways hitherto unthought of, not only in reproducing the work of the schoolroom but in new creations."

*Manual Training.*—“The afternoon classes in manual training continued to hold the appreciative interest of the pupils. Sewing, for many years, has been exclusively for girls, but during the past year seven boys were given the privilege of acquiring the art, and with such success that they will be allowed to continue their work another year. Thirty-three girls received instruction, and a number of these exhibited a decided aptitude for fine needlework, while others showed much ability in drafting patterns and fitting garments. . . . Woodworking in this school is preceded by a course in paper and cardboard construction, given to pupils in the primary department. Twenty pupils received instruction in the first course, eighteen in the second and thirty-two in the sloyd. . . . Four classes in cookery have received instruction during the year. Two of these consisted of girls, one was composed of boys, and one of both boys and girls. Experience with boys in this department confirms our belief that they can profit very much by the knowledge which this branch of domestic science gives to them. The result of the work, both for instructor and pupils, was very satisfactory. . . . Two classes in type-setting, one for boys and one for girls, began work late in January. The services of a practical printer were secured, and instruction was given on two afternoons each week.”

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#### SARAH FULLER HOME FOR LITTLE DEAF CHILDREN.

ELIZA L. CLARK, *Matron and Principal.*

This Home school was founded by Mrs. Louise Brooks, and incorporated in June, 1888. It is on Woburn Street, West

Medford, within fifteen minutes walk of the station on the Boston & Lowell Railroad. It is for the purpose of giving a home, with care and instruction, to such little deaf children as are too young to enter the Horace Mann School for the Deaf, and also for those whose parents or guardians cannot give at home the preliminary instruction which the loss of hearing renders necessary. It is not the intention of the management to develop the Home into a large institution for many children; its ambition is to improve the quality of its work, and to make the Home a model for similar schools elsewhere.

The receipts of the Home from June 1, 1899, to June 1, 1900, including a balance from the preceding year of \$3,194.27, were \$9,851.28. The expenditures were \$3,897.14, leaving a cash balance of \$5,954.14.

The Sarah Fuller Home fund amounts to \$15,580.33, and the Ellen R. Dwight scholarship to \$5,000.

#### REPORT OF THE PRINCIPAL.

From the report of the principal it appears that nineteen different children have attended the school during the year, the youngest having been received at the age of two years and five months and the oldest at the age of four years and ten months.

“During the latter part of the winter the Home was fortunate in securing the services of an experienced kindergarten teacher, Miss M. E. Melchert, who has given instruction to children and attendants in kindergarten occupations and games. She has made fortnightly visits for this purpose, and has shown that the aims of the kindergarten are in entire harmony with those of the Home. The kindergarten aims are: to lead the child to acquire self-reliance, independence and freedom; to develop habits of cleanliness and order, punctuality and regularity; to stimulate self-activity, and to make him feel that he must co-operate with those about him; to develop self-expression in speech, drawing, painting and construction; to stimulate his inventive faculties, his imagination and power of observation.”

Since January Miss M. E. Adams has spent an hour each week with the children, giving them exercises which may be

grouped roughly under three heads, — memory, sequence and speech reading.

Miss Monro, teacher of articulation at the Horace Mann School, has made occasional visits, and reports gratifying progress in the work preparatory to speech.

One of the monthly visitors, Mrs. Lawrence, speaks of a noticeable “absence of disagreeable, unintelligible sounds,” — a fact due to the very early training in the use of their voices which the children receive.

“The theory and practice of the Home is that the children are in no sense in need of pity, — that if they are regarded as happy, progressive and self-reliant, they will become so; this they are, to an unusual degree. Their physical needs are fully supplied indoors in a well-situated, well-lighted, well-ventilated house. Outdoors the children have a piazza, and, in the warm months, plenty of green grass in which to play. There is a broad sweep of country to the rear of the house, and pleasant surroundings on all sides, for an outlook. The country sounds, of birds and waving trees and grasses, are lost to these children; otherwise, they are just like the children in the neighboring corner, — little human babies, to be guarded and helped in their development with uncommon forethought and judgment. In comparison with normal children of their age in the kindergartens, I should say the powers of concentration are almost abnormal in these children. The child whose hearing is acute has his attention distracted in ways that do not affect these children, and his nervous energy is expended sooner than is theirs.”

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#### NEW ENGLAND INDUSTRIAL SCHOOL FOR DEAF MUTES.

BEVERLY, MASS., Jan. 1, 1901

*To the Board of Education of the Commonwealth of Massachusetts.*

In compliance with chapter 37 of the Resolves of the year 1900, the trustees of the New England Industrial School for Deaf Mutes submit the following report of their expenditures of the sum authorized by said resolve: —

Balance Jan. 1, 1900, . . . . . \$10 63

Receipts:—

Donations, . . . . .	\$1,692 68	
State appropriation, . . . . .	2,000 00	
Loan Beverly National Bank, . . . . .	1,000 00	
		<u>4,692 68</u>
		<u>\$4,703 31</u>

Expenditures:—

Groceries, coal, etc., . . . . .	\$2,082 76	
Salaries, . . . . .	1,224 24	
Farm account, . . . . .	1,147 30	
Interest on loan, . . . . .	34 59	
		<u>\$4,488 89</u>
Balance Jan. 1, 1901, . . . . .		214 42
		<u>\$4,703 31</u>

Amount due on outstanding accounts, . . . . .	\$635 53	
Amount due on salaries, . . . . .	632 28	
Amount due on loan account, . . . . .	1,000 00	
		<u>\$2,267 81</u>

Respectfully submitted,

JOHN W. CARTER, *Treasurer*.  
 DUDLEY L. PICKMAN,  
 EDWARD L. GIDDINGS,  
 CHARLES WOODBERRY,  
 ANNIE M. KILHAM,  
 ROBERT R. ENDICOTT,  
 SAMUEL COLE,  
 PETER E. CLARK,  
 GILBERT A. TAPLEY,  
 PATRICK LYNCH,

*Trustees.*

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THE BOSTON SCHOOL FOR THE DEAF.

THOMAS MAGENNIS, *Superintendent*.

The Boston School for the Deaf was incorporated under the laws of the Commonwealth of Massachusetts, and received its charter on the third day of May, in the year of our Lord 1899. Its object is the instruction of deaf children.

The school was opened in Jamaica Plain in the month of October of the same year, with 4 pupils. The number of pupils now enrolled is 31; of this number, 28 are provided with board as well as tuition, and 3 are day pupils. All the pupils are sent to the school at the request of their parents or guardians, by warrant of the Governor, and are beneficiaries of the State.

The method of instruction used in this school is that of speech and speech reading.

It may be hardly necessary to state, but quite necessary to have it understood, that the pupils of a school for the deaf differ greatly in their capacity for acquiring knowledge. It is only after a great deal of patient labor and unceasing observation of the daily life of the pupils that their real mental condition can be ascertained. Some of them acquire a knowledge of the use of words readily, only to forget it almost as easily. Others seem to require a long and persevering drill in articulation before they can pronounce even the simplest words, and yet later on give proof, by the facility with which they repeat words previously taught, that they have both mastered the meaning of these words and acquired the power of speaking them. In this school one great help to an increase of a vocabulary is the grouping of the children into little families of five or six in their dining room, where they are taught to speak their wants by asking each other for the different articles of food and table ware, at their meals. This suggestion was made, and has proved to be of very great value, by a lady member of the State Board of Education.

The system of speech and speech reading as used in this school has been productive of very good results. As the acquisition of language is the end to be attained in the teaching of the deaf, and the development of the mental faculties is the sure way to reach this end, our experience (very limited, it is true) leads us to believe that the exclusion of the manual alphabet and the sign language is advisable. The use of the combined system (signs and speech) seems to retard the progress of the pupil in either one of the methods. It is far easier to teach the sign language and the manual alphabet, without any attempt at speech and speech reading, than to teach the

latter system; but at the end of school life it would seem that to be able to converse in speech, even imperfectly, with everybody, is something more to be desired than to converse by signs only with a certain limited few.

The course of study in this school, thus far, is as follows:—

*First Year.*—Sense training (exercises for the cultivation of sight and touch),—tongue gymnastics and breathing exercises. Articulation,—elements and combination of words; word drill. Penmanship,—writing according to the Spencian system of penmanship. Language,—a spoken and written vocabulary of four hundred or four hundred and fifty words (nouns and verbs; names of common objects, with the plural forms and possessive case; past, present and future tenses of verbs; declarative and negative forms of expression; some of the personal pronouns, common adjectives and prepositions; numerals one to ten). Construction of simple sentences,—questions using the simple forms who, what, how many, is, has, are and have, are answered by the pupils from the spoken and the written forms. The pupils are also taught to ask questions. Descriptions of persons and objects are given by the pupils in speech and in writing. They are taught to write a daily journal of current events in their school life, also letters at intervals to their parents.

*Second Year.*—Special drills in articulation. Language,—nouns, verbs, adjectives, pronouns and prepositions. Construction of sentences. Object lessons on familiar subjects. Daily journals and letters, as in the first year. Pictures are shown to pupils, and described by them in story form. Simple stories, written on charts by the teacher, are used for sight reading and language drill. During this year the pupils complete Book 1 of Miss Sweet's "Language Lessons." Numerals,—ten to one hundred.

The course of study and the general method of imparting knowledge to the deaf is based on that of the Clarke Institution for the Deaf at Northampton, Mass. This school has proved the wisdom of its exclusive teaching of speech and speech reading, not only by the marvellous results attained, as exemplified in its graduates, but also by the reputation it has obtained in other schools for the deaf. Our teachers, in the course of a

prolonged visitation of the schools for the deaf in New York City, Fordham, Westchester, Philadelphia, Rochester and Buffalo, have everywhere heard the system of the Northampton school praised and commended in the highest terms.

The Boston School for the Deaf appreciates very highly the words of commendation expressed by His Excellency Governor Crane and his Council, on the occasion of their official visit to the school, in October, 1900. Three of the members of the State Board of Education have also visited the school, and were much pleased with the methods employed and the proficiency acquired by the pupils during the short time that the school has been in operation. Visitors to the school are always welcome, except when their visits are prompted by a spirit of curiosity. Those who are in any way identified with similar work are not only welcome, but are urged to come frequently. Teachers in other schools for the deaf have visited this school during the past year, and our teachers have derived benefit from a comparison of methods of teaching under the same general system. It is very evident that great progress has been made by the pupils in this school, most of whom entered without being able to pronounce an intelligible word, and are now able, to a certain extent, to express their wants in speech, and to understand quite readily the speech of their teachers and their fellow pupils.

As a help to perfect articulation, the "akoulalion," an instrument to enable the deaf to hear, invented by Mr. M. R. Hutchison, has recently been introduced in the school. By the aid of this instrument the pupils are prompted to make unusual efforts in articulation, because by the use of it they are enabled to hear the sound of their own voice. It is undoubtedly helpful in teaching speech to the deaf, but to a limited extent. Even when the deaf child by the use of this instrument is enabled to hear certain sounds, — the voice of the teacher, the tone of a piano, as well as his own voice, — the difficult task then begins, namely, to teach him what these sounds represent. The imitation of the motions of the lips and tongue of the teacher seems to be the more sure way of teaching speech to the deaf with good results. Every practical means of accomplishing this — for this, after all, is the sole aim of our school — is used.



If any means could be devised by which the parents of deaf children could be persuaded to send them to schools for the deaf at as early an age as speaking children are sent to school, a more rapid acquirement of speech would be the result. The longer a deaf child remains away from school the more its power of apprehension is dulled, and a proportionately greater expenditure of time and patience and drill is necessary to quicken its dormant faculties. A kindergarten school for very young deaf children seems to be as necessary in preparing children for the studies in an ordinary school for the deaf as a primary or grammar school is necessary to prepare speaking children for the high school or for college.

Dr. James P. Broidrick, the attending physician, reports only two cases of illness during the year, — one a case of diphtheria contracted by a pupil at home during the Christmas vacation. On her return to school the medical examination disclosed the fact of her illness, and she was immediately sent to the City Hospital. After remaining there a short time she was discharged cured, and returned to the school without any appreciable retardment of studies. One other pupil, whose health on entering the school was very delicate, returned to her home by the advice of the attending physician.

The otologist of the Boston School for the Deaf, T. J. Rioridan, M.D., of Beacon Street, Boston, reports that the organs of speech and hearing of the pupils have not required any special treatment at his hands during the year. The general health of the pupils is exceptionally good. Well-ventilated rooms, good food, frequent baths, regular exercise and excellent sanitary arrangements, together with the constant supervision of the pupils by their teachers, insure such a physical condition as to excite the admiration of all visitors to the school.

Of the thirty-one pupils in the school, twenty-eight are totally deaf and three are partially deaf. Ten were born deaf.

The residence of the pupils is as follows: Boston, 2; East Boston, 1; South Boston, 5; Chelsea, 1; Fall River, 1; Haverhill, 1; Jamaica Plain, 5; Lynn, 1; Malden, 4; Merrimac, 1; Plymouth, 1; Roxbury, 3; Saxonville, 1; Stoughton, 1; Wakefield, 1; Walpole, 1; Westvale, 1.

The school opens on the third Wednesday of September and closes on the third Wednesday of June.

# PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

M. ANAGNOS, *Director*.

At the opening of the school year, Oct. 1, 1900, the names of 264 blind persons were recorded in the registry of the Perkins Institution, including 175 in the school at South Boston, 74 in the kindergarten at Jamaica Plain and 15 in the workshop for adult blind. In the school itself the number may be thus divided:—

Pupils in the boys' department,	. . . . .	85
Pupils in the girls' department,	. . . . .	92
Children in the kindergarten,	. . . . .	74
Teachers and employees,	. . . . .	10
Domestics,	. . . . .	3

## Beneficiaries of Massachusetts:—

At beginning of year,	. . . . .	141
Admitted during year,	. . . . .	17
Discharged during year,	. . . . .	11
At present time,	. . . . .	147

A satisfactory indication of the work of the school throughout the year may be found in the prescribed courses of study, which are carefully planned so as to develop the individual character of each student, to foster his self-expression and to give zest and vigor to his pursuit of knowledge. While the fact that good results can only be obtained where prime interest is secured must be accepted as a basic principle, the pupil is led to recognize the truth that work along every line can be made to contribute toward advance in the chosen path, and then all branches of learning become of interest, because they tend to promote the central idea. Thus sound, thorough training along mental, physical and moral lines constitutes a broad and solid foundation, upon which a superstructure of personal design may be reared.

The general progress of the year is thus summarized by the trustees in their report to the corporation:—

The main object of the exercises pursued in the various departments of the school has been to promote the physical well-being of

the pupils and strengthen their muscular systems, to develop and discipline their minds, to cultivate their hearts, and chasten their sentiments, to improve their taste and æsthetic sense and to provide them with as full an equipment as possible for the active duties of life.

Regular, systematic physical training has kept its place of honor on the list of the educational agencies employed in the school, and has received all the attention which its importance demands. The pupils have been required to go through a series of gymnastics, calculated not only to build up their physique but also to promote their mental and moral sanity, and the results have proved to be exceedingly beneficial in every respect.

Manual training, which constitutes a very important factor in the educational work of the institution, has been especially emphasized of late years, because it meets some of the specific needs of the blind. It contributes largely to the development of motor nerve cells in the brain; hence it promotes mental power as well as manual dexterity. It is both creative and uplifting, and teaches effectively the weighty lessons of care and responsibility.

Steady progress has been made in the literary department during the past year. The good work of rendering the methods of instruction and training as natural and as rational as they ought to be has been prosecuted with diligence, and many improvements have been introduced. The mind of each pupil has been considered not merely as a repository of information or as a sort of granary of wisdom, but has been treated as a growing organism, to be developed and assisted in the acquirement of power, of self-poise, self-control and self-expression.

Music in its various branches has been taught by a corps of well-qualified and experienced teachers, and all the pupils who possess the requisite amount of musical talent have been carefully instructed and properly trained in the theory and practice of this art. Every needful facility has been supplied for the performance of the work in the best possible manner. Cut off as the blind are from the visible universe, they find an immense source of pleasure and comfort in the domain of sound, and are very eager to explore it and to revel in it. Hence they apply themselves to the study of music, both vocal and instrumental, with great zest, and derive from it the æsthetic culture and fine artistic enjoyment which they cannot obtain from any other branch of education.

Step by step the curriculum of our school has been reorganized and enlarged, so that those of the students who go through the post-

graduate course are well fitted to pass successfully the prescribed examinations for admission to the various universities and colleges of New England; yet the need of our pupils can never be entirely satisfied. Owing to the advancement of the science of pedagogy, new conditions are constantly created, which demand the adoption of improved processes and more rational methods of instruction and training; and it is our purpose to provide for the sightless children and youth, who are entrusted to our care, educational advantages equal to those which are freely given to the ordinary pupils of the best public schools and endowed academies in the State.

In the literary work of the school the best modern pedagogic methods have been followed with excellent results. There are fewer differences between the instruction of the blind and that of the seeing than the public is aware of, and fewer changes are necessary in order to adapt to the uses of the sightless the educational advantages which the normal pupil enjoys. Therefore, the blind scholar is not held aloof from the common interests of the world of letters, but he feels himself a part of the body of students of like aims throughout the land, — this in itself being a consummation devoutly to be wished.

In his report to the trustees the director thus characterizes the importance of the study of English literature to these pupils: —

Special emphasis must be always placed upon the study of literature, both in prose and verse, for this branch of learning, like that of music, is of far greater importance to the blind than to any other class of scholars. It opens to them new vistas of reflection and wide fields of knowledge, and paves for them the way to communion with noble minds. It appeals to the emotions, enriches the vocabulary, taxes the fancy to the utmost and stimulates and strengthens the mental faculties. It trains and helps the student to perceive quickly essentials in thought, and grasp them readily; to imagine vividly and sanely; to feel deeply; to analyze character skilfully, and appreciate its moral worth; to acquire a new sense of the meaning of nature; to gain ease and elegance of style, and to avoid rough and unmusical diction; to look into a world of enchantment, peopled by knights and ladies and abounding in tournaments and chivalrous enterprises; to understand clearly the life and events of former years; and to learn that service is both a duty and a source of pleasure, and also that

poetry and truth are not mutually antagonistic. It creates in the young a love of high ideals, and enables them to enjoy the delightful word-pictures of “*Evangeline*” and of the “*Lady of the Lake*,” or the quaint stories of the “*Sketch Book*” and the “*Twice Told Tales* ;” to listen to Milton’s mighty organ tones with reverence and admiration ; to study human nature with fancy’s child, “*Sweetest Shakespeare* ;” to feel the eloquence of Burke and Gladstone, of Webster and Wendell Phillips ; to dance around the world with Shelley’s “*Cloud*” and glide down to Camelot with the “*Lady of Shalott* ;” to read in fascination the tale of the “*Ancient Mariner* ;” to catch a faint glimpse of the trailing clouds of glory in Wordsworth’s matchless ode, and to feast in Plutarch’s “*Lives*,” which have been styled “the pasture of noble minds,” because a youth cannot look upon the shining examples therein set forth without becoming possessed by an earnest desire to emulate them.

To look on noble forms  
Makes noble through the sensuous organism  
That which is higher.

Neither in science nor in mathematics nor in any other branch of learning are all these elements combined together as they are in literature. It should be distinctly understood, however, that little can be gained by a superficial perusal of books, or by obtaining a dry catalogue of rhetorical figures, or even by the treasuring in the memory of choice selections from classic authors. It is only by entering into the study of literary masterpieces, with a determination to explore the mines of thought and the depths of sentiment which lie hidden in these works, that the blind will profit greatly by them, and will be able to —

Think clearly, feel deeply, bear fruit well.

Music becomes for many that prime interest which engages the closest attention, since this art alone offers enjoyment without alloy and satisfies their æsthetic craving. The department is thoroughly equipped for instruction and practice upon every kind of instrument, both wind and stringed, as well as for vocal training and for theoretical studies ; while an admirably organized band and an orchestra give the necessary opportunity for *ensemble* playing which is indispensable to young musicians. The scope of this department is broad and comprehensive, and a strong impulse is given by it to any native talent which a pupil may possess.

Mr. Anagnos speaks as follows of the value of music to the blind : —

In the education of the blind, more than in that of any other class of children, music should hold a most prominent place, since it exercises a powerful influence on their minds and characters. It supplies in an attractive and effective manner the very elements that are wanting in the life of persons bereft of the visual sense. It addresses itself most directly and forcibly to their mental, emotional, æsthetic and moral faculties, and brings these into a healthful activity. It is the voice of nature speaking to their hearts, appealing to the best that is in them, calling out their finer feelings, and soothing or stimulating their pure, innocent emotions. It develops in them their patience and perseverance, promotes their mental alertness and intellectual grasp, strengthens the memory, quickens the imagination, cultivates the taste as well as the analytical and synthetic powers, and engenders an appreciation and love of the beautiful which exist in every young soul, and which should be assiduously fostered and carefully nurtured.

An increase in mental alertness, ease of motion and dexterity are some of the advantages which find their source in the systematic manual and physical exercises which every pupil in the school is required to take. Too much stress can not be laid upon the importance of these branches of the curriculum to the well-rounded development of the nature of each young man and woman, since their value is recognized to be beyond the performance of certain tasks, even beyond the recreation and relaxation from close mental application, which is in itself a desirable outcome, but to lie in the ability to think quickly and execute well, to reason deeply and to concentrate mental action.

Of the results of the sloyd method, which has been incorporated into the work of this institution, Mr. Anagnos gives the following account : —

About ten years ago sloyd attracted our earnest attention, and it was introduced into our curriculum under favorable auspices. It has since taken deep root, and now holds a commanding place in our plan of education. It is taught in a thorough and most highly satisfactory manner by a set of faithful and admirably well-equipped instructors,

and its results are conspicuous in various directions. They can be easily seen not only in the physical and mental vigor of the students or in their organic evolution, but in the enlargement of their resources and in their readiness to grapple with difficulties and overcome obstacles. These results are also evident in their ability to utilize their tactile power in different ways, and in the facility with which they learn to read and write, to use the ciphering board and the embossing machine, to manipulate the typewriter, to master the keyboard of the pianoforte and that of the organ, to construct outline maps and geometrical diagrams, and to handle tools used in tuning and repairing instruments. The value of sloyd to our whole system of education can indeed hardly be overestimated.

The Howe Memorial Press and the library form the centre and rallying point of all departments of the institution, since they are the base of supplies whence every branch draws its inspiration. No line of work is wholly independent of the assistance which they render, and thus they serve the best interests of the school, and extend their influence throughout the State and beyond its borders. During the past year the following works have issued from this press: the last three volumes of Green's "Short History of the English People;" Thackeray's "Henry Esmond," in three volumes; and Ernest Seton-Thompson's "Wild Animals I Have Known." In addition to these, thirty-nine pieces of music have been printed in the Braille point system for the use of blind musicians.

Plans for the work of instructing the adult blind in their homes, which through the action of the State Legislature was recently added to the scope of this institution, have been carefully formulated, and put into execution as rapidly as possible. Although activity in this direction has only lately commenced, a fair measure of success may already be credited to the movement. Three teachers are now regularly employed for this purpose; but, before engaging in the actual work of instruction, they must search out those needing their aid, arouse them from their apathy and encourage them to undertake the labor. Supplemented by the extensive library of the school, there is every reason to hope that this new feature may become a most helpful and valuable addition to the field of action of the institution.

The kindergarten for the blind has a hold upon the interest and sympathy of the community which the years have been powerless to loosen; rather has it grown the stronger as time has passed, until now its place among the important educational institutions of Boston is assured. Supported entirely by the voluntary contributions of the large-hearted people of Boston and of neighboring towns, the little school abides in the faith and love of its benefactors, as the recurrence of their names in its annals, year after year, abundantly proves.

Too much importance cannot be attached to the advantage of removing the little blind children from their homes, which are only too often those of degradation, ignorance and wretchedness, at an early impressionable age; for, if they are allowed to grow up in the poisonous air of their surroundings, their whole natures run the risk of being so tainted that the most careful later training may be powerless to eradicate the evil, and their presence may become a menace to the innocence and purity of those with whom they come in contact in after years. But the kindergartners are careful nurserymen. Under their skilful tending and pruning, the noxious weeds which may have gained a foothold are rooted out or die away for lack of nourishment, while the sweet, pure blossoms of childhood are watched and coaxed and encouraged until they grow strong and vigorous and beautiful, and expand so as to fill the whole garden, leaving no room for weeds. In this child's garden every little boy is gladly welcomed, and the fact that, owing to the lack of sufficient room, the same cannot yet be true for every little girl, becomes more and more grievous as time goes on. The need of a primary building for girls, similar to that now in use for the boys, is a pressing one, and the delay in taking into our care little girls who are now awaiting admission is doing them an incalculable wrong.

At the opening of the present school year three little girls from the primary class of the kindergarten were promoted to places among the older pupils at South Boston, and seven little boys proudly took the same step from the primary building at Jamaica Plain. The vacancies created by the latter move permitted the transfer of five little boys from the kindergarten building to that for the primary grade.



The three pupils who are both blind and deaf continue to attract universal attention by the integrity of their work and by their symmetrical development and superior mental attainments.

Edith Thomas has now reached a point where the spontaneity and originality of expression which belonged to her younger years are less apparent; but she retains unchanged her sturdy independence and uncompromising directness, which have levelled all barriers and have made her achievements unalterably her own through personal effort. She is deliberate in her course of reasoning, but usually accurate in her conclusions. Her record for the year is satisfactory in all her studies, while her personality is unique and most interesting.

Elizabeth Robin has shown a decided advance in scholarship, in mental poise and in womanly qualities. She has maintained her standing among her classmates without difficulty save in arithmetic, for the mastery of which many extra hours have been required, — a necessity which has been cheerfully acceded to by the young girl herself. Her keenness of perception wherever her interest is aroused is remarkable, and there is no doubt of her ability to reach a high standard of intellectual achievement. She is a charming girl. Her beautiful, thoughtful face is aglow with feeling and happiness, and she carries sunshine with her wherever she goes.

To Tommy Stringer the year has been rich in new experiences and broadening influences. Two especially important events which must be chronicled are his entrance into the Lowell public grammar school in Roxbury, and a visit to Philadelphia and Washington, which through the kindness of one of his dear friends he was permitted to make in the spring vacation in April. At the Lowell school Tommy took his place in the sixth grade, where he met satisfactorily the requirements of each day without concession save for the presence of his special teacher who acts as medium between him and the rest of the school. He is the centre of tender compassion and loving solicitude among his schoolmates, and he gladly reciprocates their interest out of his warm heart.

The trip to Philadelphia and Washington was full of delights, for Tommy possessed the “open sesame” which threw

wide to him all doors, and, with his boundless enthusiasms, his genius for detail and his clear memory, which holds fast every point that has once been gained, each bit of information added its quota to the storing of his wonderful mind.

Tommy's development is a matter of deepest moment to the entire educational world. Indeed, he is the world's charge, and his benefactors are limited neither by age nor by locality. Those whose generosity has made possible the performance of this wonderful work may well rejoice in the emancipation of this imprisoned mind, which, but for their benevolence, would never have caught the glory of the dawning day or felt the impulse of definite purpose.

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### THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

While the Massachusetts School for the Feeble-minded is no longer required by law \* to report to the State Board of Education, it is nevertheless so related on its school side, if not on its custodial side, to the general educational policy of the Commonwealth, as to justify recognition of its work by the Board, as in former years. The trustees apparently take this view of the matter, as may be noted in the opening words of their report:—

#### TRUSTEES' REPORT.

MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED,  
WALTHAM, Oct. 12, 1899.

*To the Corporation, His Excellency the Governor, the Legislature, the State Board of Insanity and the State Board of Education.*

The trustees have the honor to submit their report for the year ending Sept. 30, 1900.

The school at the close of the year had in all 680 inmates. Of these, 37 have been supported in whole or in part by their parents and guardians, more than the average cost of maintenance and instruction being paid for a very few of them. The income of invested funds has been applied to the support of 15

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\* See section 26, chapter 433, Acts of 1898.

inmates. There have been 35 beneficiaries of other States, on whose account the sum of \$300 per year each is contributed to our treasury, under the statute. There have been 252 inmates in the custodial department supported by cities and towns.

Two hundred and fourteen pupils in the school department have been provided for under the regular annual appropriation by the Legislature, and the Commonwealth will pay the further sum of \$21,463 for the support of 127 inmates in the custodial department. Included in these numbers are 47 large boys and men living on the Templeton estate.

The average number of inmates of all descriptions for the year has been: males, 367; females, 259; total, 626. There have been 280 applications for admission; 114 have been admitted; 38 have been discharged; 18 have died; 25 have been transferred from the school department to the custodial department; 1 has been transferred from the custodial department to the school department.

The current expenses for the year have amounted to \$105,-418.22, or \$3.22 per week for each inmate. In addition to the regular annual appropriation of \$35,000, the last Legislature appropriated the further sum of \$50,000, for special purposes connected with the Templeton estate.

Further statistical matters or details of the above statistics appear in the report of the treasurer and the superintendent.

The proceedings at Waltham during the year just passed have been without much departure from the routine of proceedings which may be regarded as established, so far as the changing character of our inmates permits. Our make-up of any year is not quite like that of any other year, owing to the fact that we fill vacancies with urgent cases. It may be that a boy who has been under schoolroom instruction is followed by a full-grown man, that a little girl is followed by the mother of more than one child, or that the man and the mother are followed by children. This year there have been more than the usual number of vacancies, owing to the transfer to Templeton of nearly 50 large boys and men. The vacancies have been largely filled by school cases, and, it may be added, by schoolroom cases, for in many instances the trustees in classifying the inmates hold manual training to be the equivalent of book and

blackboard instruction. Since at first only males will be sent to Templeton, one of the boys' wards in the west building will soon be given up to the use of girls, in order that the female sex shall share in the benefit to be derived from the expansion of the school.

The trustees have power to discharge at discretion any inmate. But even in a discharge made with much deliberation and consideration a mistake may be made. One occurred rather more than a year ago, which it will be for the good of the school and the community to make public. A young female who had been for some time an inmate of an endowed institution was duly committed to the school and placed in the custodial department, because she was found to be feeble-minded and had arrived at womanhood. The usual bill for her support was sent to her place of settlement. The town authorities protested that the town was too poor to pay, and begged that the girl be given to them to be placed in the town almshouse, which they represented as well kept and as having an excellent matron. Our superintendent visited the almshouse and became satisfied that the representations were true, and particularly that the matron was a most excellent woman. The girl was discharged, was put in the almshouse, and is now a mother. The moral is that for such girls, even a single girl, only a trained corps of watchers will answer; no one woman can exercise the vigilance required.

The case of a young girl who was not discharged will be of interest, as illustrative of a class of work coming before the trustees. The story is briefly told in the record of the proceedings of the April meeting of the trustees, and is here repeated, without names:—

Special mention was made by the superintendent of the case of —, an inmate from —, regularly committed by the judge of probate for — County. The town authorities of —, in accordance with a vote of the inhabitants of the town in town meeting, had asked for her discharge, and the father of the girl had given his consent. The mother of the girl, however, had written a pitiful letter, descriptive of the home of the girl and her prospective future life should she be discharged. After much discussion it was voted unanimously that the girl, —, be not discharged.

We have made a beginning at Templeton, a breaking of ground literally. On a visit there this very day one would see hard at work with shovel and pick, with crowbar and their hands, as happy a gang of laborers as could be found in the world. No one could be but pleasantly affected by the cheery appearance of the workers, without a thought of what they really are. Some are laying pipe to bring water from a reservoir of their own construction at the top of a hill to a group of the first permanent buildings on the southern exposure of the hill; others are laying cellar walls for one of these buildings. The strength of the workers is surprising. We have generally found that our boys (we always call them boys, for the feeble-minded are always children), under proper guidance, will do each day after day rather less than half a laboring man's work. The amount of work the boys at Templeton have done this summer probably exceeds the average amount of work done in the same length of time by any equal number of laborers engaged upon a public work. All about is clean and healthy. From about the old buildings on the particular farm where they are now busy they have removed the accumulations of litter of a hundred years, scraping down to hard gravel and rock. Eventually the saving to the Commonwealth must be large. For a while the saving must be credited to construction. Eventually we shall have a colony of farmers, living not in spacious buildings such as are found on institution grounds, but in small cottages, not differing much in character and cost from country dwellings occupied by persons of extremely moderate circumstances; and then as farmers they will more than half support themselves, if in the accounting no charge is made against them for original outlay for land and buildings. For a while, however, our colonists must mainly be employed in preparing the homes which they or their fellows are to occupy. Moreover, we are obliged to do our own work. Labor of the description required cannot be had from the neighboring villages. It is well that it is so. Otherwise there might be pressure to hurry the development of the Templeton colony, in order that room may be made for the immediate reception of large numbers of feeble-minded persons seeking admission to the school. But this scheme must be worked out as begun.

The development of the estate must be an important part in the continued development of the persons who are to dwell upon it. Under our original scheme, the colony at Templeton is to be an overflow from the school at Waltham, and the overflow is to consist of persons whose training at Waltham will enable them to lead largely self-supporting lives. There is to-day at work at Templeton, among the selected boys that have been sent there, a young fellow who two years ago was admitted to the school a drivelling idiot. The arrest of deterioration, or, more, the improvement, in his case, has been wonderful. The training at Waltham is essential to the success of Templeton.

We have stated above what the inmates at Templeton might be seen doing on a visit to that place at the present time. The superintendent's report will state in detail what has already been accomplished there, and when and how. It is sufficient for the trustees to report generally that during the winter four of the old farm houses were put in durable, first-class order. New sills and new windows were put in and the chimneys rebuilt. At two of the houses, one being at the middle of the estate and the other at the northerly end, internal alterations were made to provide in each a dining room, a sitting room, a kitchen and a pantry for the boys, as well as ample accommodations, including sleeping apartments, for employees. Several of the old barns have been put in good order. This summer near the old farm house at the middle of the estate one dormitory, sufficient in size for 25 inmates and an attendant, has been built and practically made ready except the furnishing. The cellar for a second dormitory is practically completed, and the dormitory will be ready for occupation before winter. Between the two dormitories has been erected and completed, except the furnishing, a lavatory, which the inmates of both are to use. A laundry, nearly completed, is at a distance of some thirty rods from the middle farm house and dormitories. These new buildings have low walls but big handsome roofs of uniform pitch, and are of attractive appearance. The 47 boys at the farm, with their attendants, will this winter occupy the premises thus particularly described. It is not unlikely that 20 more boys will be sent to the upper farm house before

winter, since temporary sleeping accommodations for that number could be provided in the farm house itself. Next year several dormitories and a lavatory will be built in the immediate neighborhood of the upper farm house. The 47 boys went to Templeton in two detachments, the first early in May and the second in July. Since their arrival they have lived, as it were, in a camp, taking their meals in a temporary shed open on one side to the weather, and sleeping in a barn. One of the old farm houses has served for an office building. The boys now take their meals in it temporarily, and are housed at night in an old dwelling house near by. Apart from their work, and notwithstanding their work, their enjoyment has been great. In their leisure hours they have wandered over the whole of the great domain. They have a feeling of proprietorship, of which there is evidence in signs everywhere, forbidding trespassing. Nearly half a hundred warnings, "No berry picking allowed," serve at least to indicate the abundance of the fruit. The boys have with pride sent one thousand quarts of berries to their friends at Waltham.

The division of the school has been beneficial in giving to each of the separated parties something to think of in an outside world. The boys at Templeton are eager to hear everything that happens at Waltham. Many of those at Waltham (there are some who never think) listen with intense interest to the reports of what is doing at Templeton.

The improvements at Templeton have involved an expenditure of only about one third of the appropriation of \$50,000. The remainder of the appropriation lies in the treasury of the Commonwealth to the credit of the school, and will be ample to cover the construction expenditures of the colony for another year. An expenditure of not more than \$25,000 will, however, be necessary at Waltham for increase of the service plant; and we hereby petition the Legislature for an appropriation of that sum, to be expended, or so much of it as shall be necessary, for such purpose. The present number of inmates far exceeds the number originally contemplated. We have added to our dormitories, but have not provided the corresponding additional accommodations required in the service department.

The South Boston estate has been sold. There existed a

mortgage of \$15,000 (originally \$20,000) upon this property, given in security of money borrowed to build the girls' dormitory. This mortgage of \$15,000 has been assumed by the present purchasers, they paying to us a further consideration of \$18,743, of which the sum of \$5,000 was paid in cash, the remainder, \$13,743, remaining on mortgage.

Since this school was placed upon a permanent foundation, fifty years ago, the preparatory school, then three years old, being merged therein, there have been 2,117 inmates. There died this year at Waltham a harmless old man who had been the schoolmate of them all.

FRANCIS J. BARNES,  
FRANCIS BARTLETT,  
ELIOT C. CLARKE,  
ELIZABETH E. COOLIDGE,  
J. S. DAMRELL,  
SAMUEL HOAR,  
W. W. SWAN,  
GEO. G. TARBELL,  
CHARLES E. WARE,  
F. G. WHEATLEY,  
CHARLES F. WYMAN,

*Trustees.*



## REPORT OF THE STATE BOARD OF EDUCATION RELATIVE TO THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES.

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By direction of the General Court, the State Board of Education made an inquiry last year into the feasibility of instructing the adult blind at their homes. The field of investigation is so novel, the facts ascertained are of such interest, the importance of saving them for further consideration is so clear, and the high probability that the Massachusetts movement to instruct the adult blind at their homes, if successful, will lead to similar movements in other States, — all this makes it desirable that the report of the Board issuing from that inquiry shall accompany such other reports as the Board is required to make relative to the State's treatment of its defective classes. It is accordingly given here in full : —

*To the General Court.*

The following resolve relative to the instruction of the adult blind was adopted by the Legislature of 1899 : —

*Resolved*, That the State Board of Education is hereby directed to inquire into the feasibility of instructing the adult blind at their homes, and to report the result of its investigations, with such recommendations as it may deem proper, to the next general court.

In accordance with this resolve, the State Board of Education submits the following report : —

As the resolve made no provision for defraying the expense of an exhaustive investigation, the Board has been compelled in its inquiries to respect the limited means and time at the disposal of the secretary's office. These inquiries relate to matters grouped under the following heads : —

I. The number and condition of the adult blind in Massachusetts.

II. Points for consideration in connection with the instruction of the adult blind at their homes and the views of various authorities upon these points.

III. What various agencies are now doing for the adult blind at their homes.

IV. What Massachusetts is doing for the adult blind at their homes.

V. Further provisions, if any, needed to promote the home instruction of the adult blind in Massachusetts.

# I. THE NUMBER AND CONDITION OF THE ADULT BLIND IN MASSACHUSETTS.

The State census of 1895 gives a total of 3,983 blind persons in Massachusetts, of whom 2,267 are males and 1,716 are females, the increase from the State census of 1885 being 181 males and 220 females, or 401 in all. The number for 1900 cannot be far from 4,200.

The number of blind people in proportion to the population for several countries is as follows : —

COUNTRY	Year of census.	Number of blind for 1,000,000 people.
England and Wales, . . . . .	1861	964
England and Wales, . . . . .	1891	809
Scotland, . . . . .	1891	698
Ireland, . . . . .	1891	1,135
Prussia, . . . . .	1880	831
Austria, . . . . .	1890	710
Norway, . . . . .	1865	1,363
France, . . . . .	1876	771
Italy, . . . . .	1881	761
United States, . . . . .	1880	976
United States, . . . . .	1890	805
Massachusetts, State census, . . . . .	1885	1,843*
Massachusetts, State census, . . . . .	1895	1,593*
Massachusetts, U. S. census, . . . . .	1880	893
Massachusetts, U. S. census, . . . . .	1890	738

\* See page 511 for an explanation of these large numbers.

The foregoing table has some astonishing aspects. There is a surprising discrepancy, for instance, between the State figures

and those of the United States. Moreover, it looks as if Massachusetts had twice as many blind people as other enlightened countries, — as if, indeed, she should be classed with high northern countries like Norway, where eyes break down from the glare of the sun on the snow fields, or with sub-tropical countries like Egypt, where the blindness that comes through ignorance and negligence is something appalling. The censuses of the United States previous to 1880 are practically worthless for statistics of the blind; those for 1880 and 1890 are regarded as fairly trustworthy. The censuses of the State are very carefully taken. Before instituting comparison, it is important to know the basis on which the State and the national statistics of the blind rest. Both classes of statistics relate to people blind in both eyes, but the tests of blindness differ, as appears from the following statement in the “Report on the insane, feeble-minded, deaf and dumb, and blind in the United States at the eleventh census: 1890,” by John S. Billings, M.D., deputy surgeon-general, U. S. Army, expert special agent: “This result, as regards Massachusetts, is . . . due to the fact that in the State census the term ‘blind’ included all who ‘cannot distinguish forms or colors distinctly,’ — that is, not only the totally blind, but those with defective vision; while in the United States census only those were reported as ‘blind’ who could not count accurately the number of fingers of another person held up before them at a distance of a foot.”

The enumerators under both censuses, the State and the national, generally take the statements of the head of the family, or of some trustworthy person who is presumed to know the facts, with reference to the causes, nature and extent of the blindness, as well as the number afflicted. They seldom have occasion, indeed, to apply in a personal and experimental way these tests; but the answers which they receive in response to their inquiries are affected, no doubt, by the definitions of blindness which these tests imply, and which the enumerators must frequently use in guiding people to correct answers.

Mr. Horace G. Wadlin, chief of the Massachusetts Bureau of Statistics of Labor, under whose direction the State census of 1895 was taken, has, for the purpose of the present investigation, specially separated from the 3,983 blind people reported

those who were totally blind at the time, — blind, it may be presumed, by the United States test of blindness, — and finds that their number is 1,564, or 626 for each million of the population, while the number of the semi-blind is 2,419, or 967 for each million.

Since Massachusetts has an extraordinarily large number of blind under a broad definition of blindness, and an extraordinarily small number under a narrow definition, it follows that it is important to know the standard of blindness adopted by the different countries, before instituting comparisons between them and ourselves.

In response to a request from the Board of Education, Mr. Wadlin has classified the blind of Massachusetts as follows : —

CLASSIFICATION OF BLINDNESS, AND SEX.	UNDER TWENTY-ONE YEARS OF AGE.		
	At home.	In institutions.	Total.
Persons totally blind, . . . . .	76	125	201
Males, . . . . .	43	73	116
Females, . . . . .	33	52	85
Persons semi-blind, . . . . .	281	94	375
Males, . . . . .	154	58	212
Females, . . . . .	127	36	163
Aggregates, . . . . .	357	219	576
Males, . . . . .	197	131	328
Females, . . . . .	160	88	248

CLASSIFICATION OF BLINDNESS, AND SEX.	TWENTY-ONE YEARS OF AGE AND OVER.		
	At home.	In institutions.	Total.
Persons totally blind, . . . . .	1,192	171	1,363
Males, . . . . .	659	76	735
Females, . . . . .	533	95	628
Persons semi-blind, . . . . .	1,832	212	2,044
Males, . . . . .	1,102	102	1,204
Females, . . . . .	730	110	840
Aggregates, . . . . .	3,024	383	3,407
Males, . . . . .	1,761	178	1,939
Females, . . . . .	1,263	205	1,468

CLASSIFICATION OF BLINDNESS, AND SEX.	ALL AGES.		
	At home.	In institu- tions.	Total.
Persons totally blind, . . . . .	1,268	296	1,564
Males, . . . . .	762	149	851
Females, . . . . .	566	147	713
Persons semi-blind, . . . . .	2,113	306	2,419
Males, . . . . .	1,256	160	1,416
Females, . . . . .	857	146	1,003
Aggregates, . . . . .	3,381	602	3,983
Males, . . . . .	1,958	309	2,267
Females, . . . . .	1,423	293	1,716

It is quite certain that for the purposes of the present investigation the broader definition of blindness adopted for the Massachusetts census is the better. It brings out more correctly the number of persons whose condition seriously concerns both themselves and the public. Mr. Fraser, superintendent of the Halifax School for the Blind, says: "In answering the questions with respect to the degree of sight, or as to the total blindness of particular pupils, one cannot help being impressed with the popular belief that no one is blind who sees light, and with the idea that this is a school for the blind, and hence it is a school for those who cannot see light. Of the 106 pupils now in attendance at the institution, 25 are totally blind, while the remaining 81 have more or less vision, some being able to distinguish colors and move about with ease, while others can barely distinguish the rays of the noonday sun. So far as education is concerned, these boys and girls are all practically blind, — that is, no one of them has sufficient sight to enable him to study in the public schools, — and this is the only school in which any of them can be trained and educated so as to become useful men and women. Several of the pupils now attending the institution were within the past two years attending the public schools in the community in which their parents reside. Their eyes, perhaps naturally weak, failed under the strain of constant daily use in the schools; and this fact would lead us to consider whether, in the interests of the public generally, periodical tests should not be made of the eyesight of growing children."

(Twenty-eighth annual report of the Board of Managers and Superintendent of the Halifax School for the Blind.)

The test for blindness at the Perkins Institution is lack of "sufficient sight to distinguish printed letters one-eighth of an inch square," — a test under which many if not nearly all of the semi-blind children enumerated in the State census must be accounted blind.

Of the number returned by the State census for 1895, 1,672 males and 1,269 females, or 2,941 in all, are reported as simply blind, — blind, with no attendant circumstances noted; while the rest, 595 males and 447 females, or 1,042 in all, are reported not only as blind, but also as orphans, or paupers, or criminals, or persons variously defective or diseased. Indeed, the census divides these 1,042 blind persons into no less than 61 groups. In the following table a few of these groups are given, with the numbers belonging to each, in order to convey an idea of the variety of adverse conditions and complications that accompany blindness : —

GROUPS.	Males.	Females.	Totals.
Convicts that are blind, . . . . .	21	1	22
Homeless minors that are blind, . . . . .	109	80	189
Paupers that are blind, . . . . .	131	120	251
Paupers lame and blind, . . . . .	8	4	12
Paupers insane and blind, . . . . .	9	14	23
Paupers deaf and blind, . . . . .	7	5	12
Chronic blind persons, . . . . .	67	36	103
Chronic deaf and blind, . . . . .	5	2	7
Maimed and blind, . . . . .	34	5	39
Lame and blind, . . . . .	40	31	71
Paralytic blind, . . . . .	19	10	29
Epileptic blind, . . . . .	4	1	5
Insane deaf and blind, . . . . .	1	1	2
Deaf and blind, . . . . .	56	69	125

And so on for 47 additional groups. It is obvious that a considerable proportion of blind people are so weighted down by other afflictions that their formal instruction either for intellectual or industrial purposes is out of the question.

Of the 50,411 cases of blindness reported in the United States census for 1890, 4,267 were congenital, 40,354 were non-con-

genital and 5,790 unknown. The causes of blindness, with the number of cases for each, were ascertained to be as follows:—

Unknown, . . . . .	14,456
Injury to the eyes, . . . . .	7,134
Diseases of the eye itself, . . . . .	5,455
Cataract, . . . . .	4,875
Congenital, . . . . .	4,267
Brain disease, . . . . .	2,366
Scrofula, . . . . .	1,822
General fever, . . . . .	1,213
Measles, . . . . .	889
Military service, . . . . .	743
Scarlet-fever, . . . . .	556
Small-pox, . . . . .	448
Glaucoma, . . . . .	209
Disease of one eye following injury of the other, . . . . .	158
Cancer, . . . . .	82
All other causes, . . . . .	5,738
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Total, . . . . .	50,411

The causes of blindness are of such a character as to lead one to expect an increasing number of cases as people advance in years, and therefore a larger proportion of adult blind than of non-adult blind. The census returns of England and Wales for 1881 show that:—

For a million people under 5, . . . . .	166 are blind.
For a million people between 5 and 15, . . . . .	288 are blind.
For a million people between 15 and 20, . . . . .	388 are blind.
For a million people between 20 and 25, . . . . .	422 are blind.
For a million people between 25 and 45, . . . . .	641 are blind.
For a million people between 45 and 65, . . . . .	1,625 are blind.
For a million people above 65, . . . . .	6,915 are blind.

On the other hand, the more advanced the age the fewer the survivors of that age. Out of a million people one hundred years old, the number of the blind would be enormous; but in Massachusetts, in 1895, there were only 35 persons above that age. The foregoing table needs, therefore, to be used with caution. It appears from the State census of 1895 that, of the 3,983 who are blind or semi-blind, 576 are under twenty-one years of age and 3,407 are over, — that is to say, 86 per cent.

of the blind are adults; of the totally blind, 85 per cent. are adults; of the semi-blind, 87 per cent. are adults.

The latest returns for the blind of Massachusetts were for 1895. For 1900 the number of the blind and semi-blind cannot be far from 4,200, of whom the number under twenty-one years of age may be placed approximately at 600 and the number over twenty-one at 3,600. As to the status of the minors on the one hand, and the adults on the other, it may be said:—

1. That about 150 minors are in the Perkins Institution and Massachusetts School for the Blind, and receiving instruction that cannot but serve them well when they return to their homes.

2. That about 60 minors are in other institutions.

3. That the remaining 390 minors belong to the following groups:—

(a) Those not admissible to the Kindergarten for the Blind because they are too young.

(b) Those not admissible to the Perkins Institution because they are under nine.

(c) Those not admissible to the Perkins Institution because they are over nineteen.

(d) Those not educable because of a complication of conditions.

(e) Those who in capacity and age are eligible to schooling, but have not availed themselves of their privileges.

4. That, of the 3,600 adult blind, about 400 are in institutions chiefly because of their poverty and lack of homes.

5. That, of the 3,200 at home, some have received instruction in their youth or have been favored in well-to-do homes with instruction in their adult years, and are able to read embossed type, while others are physically and mentally beyond the reach of instruction.

6. That, after excluding the classes enumerated under number five, there must remain a considerable proportion of adult blind for whom home instruction is both feasible and desirable. How large this proportion is, has not been ascertained. A considerable number capable of receiving instruction are pretty sure to be apathetic towards it. Courage and hope have left them. They have resigned themselves to their affliction with a kind of despair. How many would be likely to accept in-



struction from visitors, and profit by it, no one can tell. All one can say is, that the number of teachable cases must be considerably less than the total number of adult blind.

## II. POINTS FOR CONSIDERATION IN CONNECTION WITH THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES AND THE VIEWS OF VARIOUS AUTHORITIES UPON THESE POINTS.

The person who was chiefly instrumental in procuring the passage of the legislative resolve is Mr. J. Newton Breed of Somerville, himself a blind man. It was decided that, whatever other inquiries might be made, Mr. Breed should have an opportunity to suggest inquiries satisfactory to himself and to indicate the persons to whom they should be sent. Accordingly, Mr. Breed submitted a list of questions, the first division relating to literary privileges for the adult blind, and the second to their industrial instruction.

The following letter, containing Mr. Breed's questions, was sent out to eighteen persons, — some of them specialists, whose life work it has been to promote the instruction and welfare of the blind, and some of them people who had been taught at their homes : —

IN THE SERVICE OF THE COMMONWEALTH,  
STATE BOARD OF EDUCATION,  
STATE HOUSE, BOSTON, Oct. 6, 1899.

MY DEAR ——— : — I enclose a copy of a legislative resolve of Massachusetts, relating to the feasibility of instructing the adult blind in their homes; also a set of questions drawn up by Mr. J. Newton Breed, a blind man, who more than any one else was instrumental in securing the passage of the resolve.

Mr. Breed gave me your name as that of one who can enlighten the Board of Education on some phases of the subject. If you care to answer any or all of Mr. Breed's questions, your answers will be gratefully received; but what I am chiefly concerned to find out is the lesson of any observation or experience which you may have enjoyed with reference : —

I. To the teaching of the adult blind at their homes : —

(a) On the industrial or trade side.

(b) On the literary or academic side.

II. To the demand, if any, for special or easy forms of type for the instruction at their homes of the adult blind who have not that acuteness of touch which belongs to the younger blind.

III. To the demand, if any, for suitable literature to be sent to their homes.

IV. Or to any phase of the theme that is defined in the resolve.

I do not ask you to answer any of the enclosed questions unless your interest in the instruction of the adult blind at their homes is sufficiently great to justify me in trespassing on your courteous attention.

I have the honor to remain very truly yours,

FRANK A. HILL,  
*Secretary.*

Replies to the inquiries were received from the following persons, all of whom, with one exception, hold responsible positions in connection with agencies for variously promoting the welfare of the blind : —

1. Mr. M. Anagnos, director of the Perkins Institution and Massachusetts School for the Blind, Boston, Mass.

2. Miss Edith M. Bainbrigge, secretary of the Home Teaching Society for the Blind, 47 Victoria Street, Westminster, London, S. W., Eng.

3. Mr. G. R. Boyle, of the British and Foreign Blind Association for promoting the Education and Employment of the Blind, 33 Cambridge Square, Hyde Park, London, W., Eng.

4. Mr. C. F. Fraser, superintendent of the Halifax School for the Blind, Murdoch Square, Halifax, N. S.

5. Dr. Robert C. Moon, secretary of the Philadelphia Home Teaching Society and Free Circulating Library for the Blind, Witherspoon Building, Room 618, 1222 Walnut Street, Philadelphia, Pa.

6. Miss Adelaide E. C. Moon, honorary secretary and treasurer, Society for Embossing and Circulating the Bible, etc., in Moon's Type for the Blind, 104 Queen's Road, Brighton, Eng.

7. Mrs. Laura E. Richards, 3 Dennis Street, Gardiner, Me.

8. Mr. Henry Stainsby, secretary, The General Institution for the Blind, Carpenter Road, Edgbaston, Birmingham, Eng.

9. Mr. Henry J. Wilson, secretary, Gardner's Trust for the Blind, 53 Victoria Street, Westminster, London, S. W., Eng.

The replies of the foregoing persons were accompanied in many cases by reports and illustrative or explanatory literature.

Replies were also received from the following blind persons who were able to speak of home instruction for the adult blind from personal experience : —

1. Miss Lilla H. Albee, Warwick, Mass.
2. Mr. Harry Forrester, 11 Allen Street, Halifax, N. S.
3. Mr. Lucien B. Gould, National Home for Disabled Volunteer Soldiers, Togus, Me.
4. Mr. Arthur Reynolds, National Home for Disabled Volunteer Soldiers, Togus, Me.
5. Mr. William W. Stone, 611 Broadway, Somerville, Mass.

*Literary Privileges for the Adult Blind at their Homes.*

1. Would the privilege of reading, or of reading and writing, be a benefit to the adult blind?

As might have been expected, the answers were unanimously in the affirmative. This benefit is not necessarily a pecuniary one. The lives of the adult blind are certainly brightened by their ability to read and write. It stands to reason that such should be the case, and experience confirms what reason indicates.

2. Will the adult blind, under existing conditions, ask or apply for such privilege?

To this inquiry various answers were given. The adult blind in England, says one, ask for the privilege. The adult blind are sure to ask for it, says a second. They do not ask for it, says a third, but they gladly use it when it is offered to them. They have not asked for it in the United States, says a fourth. They must be sought out and taught in their own homes, says a fifth.

Mr. Anagnos says that they ask for the privilege.

Mr. Fraser says: "The adult blind in nineteen cases out of twenty will have to be sought out and encouraged to learn to read. Samples of print without previous instruction will have little or no meaning to them. The fact is that touch is almost a dormant sense, and requires to be awakened."

Dr. Moon of Philadelphia says: "At the present time the adult blind in this country are as a body unaware of the possibility of their being able to learn to read by means of embossed type, and therefore I do not think they are likely to ask for the privilege of reading; it must be brought to their notice in a proper manner. As most of them lose their eyesight from exhausting diseases, from accidents, or from causes which shatter the nervous system, they should have as few obstacles as possible put in their way; and for this reason the easily acquired embossed type of the late Dr. William Moon of England should be brought to their notice, and in almost every instance they will be able to learn it. The systems of embossed type principally used in the schools for the blind where children only are taught are the ordinary complicated Roman letter and three different systems of dotted letters which have no resemblance whatever to any type used by the sighted. These systems are unfitted for the majority of adults. Whatever may have been the success of these types with children, it has been conclusively proved that but very few blind adults can decipher the characters or commit to memory the contractions with which some of them are burdened. It has, however, been satisfactorily shown that the Moon type can be easily learned by the blind of all ages, and it is now being read with the greatest ease and pleasure by a large number of adults even up to ninety years of age in Philadelphia."

The conflict of views in the answers to inquiry No. 2 is probably more apparent than real. The isolation and helplessness of the blind, on the one hand, estop them from any very active personal effort to seek for reading and writing privileges. Not unfrequently there is entire ignorance on their part of the possibilities of help in this direction. The blind may, therefore, be eager to utilize these privileges when brought to their homes; there may be a desire, when such privileges are fully explained to them, to have them brought to their homes; and, yet, when it comes to taking the initiative in securing them, a certain seeming indifference or apathy may be readily understood.

3. Is it desirable or feasible to offer samples of type, such as nearly all the adult blind can be taught to read with very little effort,

to the adult blind at their homes, with information about the privileges offered, and with offers of instruction when needed?

The answers are unanimously in the affirmative.

Miss Moon of Brighton, England, says: "This is exactly what is needed, and can be accomplished by sending teachers to their homes."

Dr. Moon of Philadelphia says: "It is both desirable and feasible to offer samples of easily decipherable type to the adult blind at their homes. This is best accomplished by the acquisition of a complete library of the embossed books in the Moon type, and the employing of visitors to search out the blind, to teach them to read at their homes, and periodically to exchange their books. This is an inexpensive plan of reaching and teaching the adult blind, who are generally isolated, hidden away from the public eye, brooding over their loss of sight and their dependence upon others. Oftentimes they sit alone for hours, without any one to read to them, and without any means of passing the time agreeably. All this is changed when they can place their hands on an embossed book which they can read for themselves. But the blind need to be sought out; they are not likely to ask for the boon, most of them being either unaware of the existence of embossed books or incredulous of their ability to learn to read."

Mr. Stainsby says: "This question is perhaps best answered by stating that in connection with this institution we have an adult blind branch, and during last year no less than 376 blind persons were systematically visited in their homes, taught to read, and supplied with books. In some cases, where the two teachers who are engaged in this work find it impossible, from advanced age, extreme infirmity or other bodily or mental afflictions, to teach the blind to read, the members have gladly welcomed our teachers, in order that they may be read to. The type most generally used by the members of our adult blind branch is Dr. Moon's type, which, from its extreme simplicity and its similarity to the type ordinarily used by seeing people, is quickly acquired even by the aged blind. Many, however, also learn the Braille type, and welcome the weekly newspaper circulated amongst them in this type."

Mr. Anagnos says that in Massachusetts "it is already done."

4. Is any literature now offered to the adult blind, suited to their wants and needs, without an expense which they can ill afford?

The English answers are to the effect that there is an extensive literature suited to the blind, in type feasible for them to learn; that the expense of such literature is considerable and usually beyond the means of the blind, so that they rarely purchase books for themselves; but that, the type once conquered, they prize this literature, if it is brought to them with no attendant burden of expense.

Two or three of the answers from blind people in Massachusetts indicate that they are not satisfied either with the literature which they conceive to be available or with the expense attending its use.

Mr. Anagnos, however, says: "Books are sent out from our library to all applicants free of charge save for that of transportation. Books can also be obtained from many of the leading libraries throughout New England to which this institution has donated reading matter."

5. Is it necessary to furnish more literature than is now available?

The answers indicate that while, in the nature of the case, the stock of reading matter for the blind must be somewhat limited, there is, nevertheless, an abundance of books in the Roman as well as in the Moon and Braille types for the blind who are just beginning to read, and the stock is gradually increasing. Moreover, any book may be reproduced in embossed type, provided payment of the expense of so doing is guaranteed.

One reply says: "More of a different sort, particularly in the line of current events. The tastes of the blind are like those of seeing people."

Mr. Anagnos says: "Our capability for distribution is greater than the demand."

It is not difficult to understand how blind people in their homes may sometimes lament a poverty or dearth of literature adapted to their use, while publications for the blind are com-

paratively abundant. It is common enough for seeing people to be unaware of resources they would be glad to utilize.

6. Can such literature be produced much cheaper than at present by taking advantage of the greatly improved modes of ink printing?

This question was not worded with sufficient clearness to convey its meaning. Several persons said, and truly, that there is no connection between ink printing and printing for the blind. It was simply desired to know, however, whether, just as in ink printing there has been great gain in speed, cheapness and execution, a corresponding gain is not possible in embossed printing. The obvious answer is "Yes." And yet improvements in the way of securing such cheapness and excellence are somewhat dependent on the extent and strength of the demand, present and prospective, for embossed literature.

7. Would a weekly newspaper, giving the news of the day and information as to the latest movements in the arts, sciences and discovery, be more acceptable to the adult blind than classic books, many of which they have read while they had their sight?

Mr. Anagnos says: "Not feasible. Such a publication would be exceedingly cumbersome. All information on current events could be more readily and satisfactorily obtained by the blind through the seeing friends."

Mr. Boyle says: "A weekly newspaper would be useful and no doubt much appreciated, but it would be exceedingly difficult to produce it. In England we have only one weekly newspaper for the blind, called the 'Weekly Summary,' price 2*d*. It is liked, but contains very little news."

Dr. Moon says: "A newspaper or a magazine, issued periodically, has been tried, with some success. . . . In consequence of the great cost of reproduction, it has of recent years been thought, on the whole, more satisfactory to publish standard works than to issue merely ephemeral literature."

Miss Moon says: "I do not think a newspaper would be of the first importance to the adult reading blind, although, of course, it would give a great deal of pleasure; but the prepa-

ration of such a thing would be *most* expensive, and would *never* be self-supporting."

Mr. Stainsby says that newspapers and periodicals are greatly valued by the blind, and approves their introduction, although he admits that such items of news as they contain can be easily obtained from friends.

The blind themselves — those who have learned to read — would naturally prize a weekly newspaper. Just as seeing people frequently, if not generally prefer the newspaper to classic literature, so a similar trend exists among many of the reading blind. The desirability of such a paper is one thing, however; its feasibility, a different thing.

8. Would such a newspaper, the first copy of which should contain the alphabet, with instruction from which a seeing person could teach the blind one to read it, be the cheapest and most acceptable method of reaching blind adults?

Mr. Anagnos thinks that such a newspaper is "not feasible."

Mr. Boyle does not regard such a newspaper as "the best means of teaching the adult blind." He adds: "In order to thoroughly learn the Braille system of reading and writing, it is necessary to have a board, brass guide, style, eraser, paper, and an embossed primer; also a little book of instructions in ordinary print for the seeing."

"It would be an experiment," says Mr. Fraser, "and experience would be the only way of telling results."

"An embossed newspaper might certainly be one means of reaching adults," says Dr. Moon; "but it is not necessary to prepare a newspaper for that purpose, when so many choice specimens of English composition in prose and verse, suited to all intellectual grades, . . . are also printed in the easily acquired Moon type."

"Instruction in reading, I consider, is best given by blind teachers of the blind," says Mr. Stainsby.

Some of the adult blind, however, look with favor upon such a newspaper, although they question the cheapness of the plan.

9. Can such a paper be printed and circulated for \$2 per annum, and would it be feasible for the State to appropriate \$10,000 the first



year, to procure presses, etc., and \$5,000 for two or three succeeding years, with the prospect and hope that in a few years such a paper would be self-sustaining?

The general tenor of the answers was that, whatever service such a newspaper might render, it could not become self-sustaining.

“To help the blind,” says Mr. Boyle, “you will have to go on philanthropic lines . . . and be prepared to lose.”

Mr. Anagnos says the scheme is “not feasible.”

Dr. Moon, however, thinks that, “if such appropriations as those referred to could be secured, a vast amount of good could be effected in procuring an increase in the embossed literature for the blind; and it is possible that a newspaper at \$2 per annum might in the course of a few years become self-sustaining.” He makes a significant qualification of his view in these words: “It should be borne in mind that the news as regards ordinary passing events would at the end of a week be stale; and, if the articles were of a scientific and narrative character, they might just as well, and perhaps better, appear in distinct volumes and in permanent form.”

10. Is it not probable that the privileges asked for would in many cases stimulate the ambition and energies of the poor man who has given up in despair to try some means by which he can become a producer and earn a part or all of his own living by honest industry?

The answers all indicate that, the more the blind are educated, provided always the education is suited to their condition, and the more abundant and accessible the privileges are that minister to such an education, the more likely they are to become ambitious, self-sustaining and fairly happy.

Mr. Anagnos says that “the blind, like the seeing, may be divided into two classes, — the workers and the drones; and a self-respecting blind man will become a producer as surely as his seeing brother.”

#### *Industrial Instruction for the Adult Blind at their Homes.*

1. Can those who have learned or followed some trade for a living before becoming blind be taught the means which have been found by

years of experience to make four senses do the work of five at that trade; and can the man who has thought it impossible for him to do more be encouraged to pursue some part of his former occupation for partial or entire support?

Most of the answers indicate a belief that trades followed before blindness can generally be followed after blindness, — in short, that four senses, with intelligent direction, can be made in time to do reasonably well the work of five at such trades. Mr. Anagnos calls attention to the fact, however, that there are some trades which it would be impossible to carry on without the aid of sight.

Mr. Boyle thinks it is better for a man who followed a trade before becoming blind to continue in it afterwards, if possible, but in the majority of cases it is not possible to make four senses do the work of five.

Mr. Wilson thinks that the teaching of trades to the blind can be far more easily and satisfactorily given in institutions for the blind than in their homes. Tools, materials and experts in teaching various trades are provided much better in the former than in the latter.

There seems to be no dissent from the view that encouragement is helpful to all, and to none more so than to the blind.

2. Can the young and middle-aged blind be taught some occupation by which they can earn a part or all of their support, in either of the ways practised in other countries? Two of these ways are the following: first, where one has sufficient business faculties to prosecute business on his own account, he is assisted to start in business of his own, — this is called the Saxon method; second, where one's business ability is not apparent, and he has no kindred or friends to take the care of his business, there may be established working homes, where, if not entirely self-sustaining, one may earn the larger part of his living, and not be entirely dependent on the charity of friends or the public.

Mr. Stainsby: "The methods suggested in this question are precisely those adopted in this institution. We have at the present time a very large number of ex-pupils of good business ability practising trades and professions in their own homes, having been assisted to do so by this institution. We have

something like 50 blind persons now employed in our workshops (and this number is rapidly increasing), who are gaining a fair wage, and the greater part of them entirely support themselves. These employees have been trained at the institution, and have received employment at the completion of their training. In every instance it would have been unwise to have started these persons in business on their own account, either because the trades they have learned could not be practised at home, or their business capacity would not be likely to bring them success. Besides the employees mentioned above, we have a considerable number of blind teachers."

Dr. Moon: "Upon an average only 10 per cent. of the adult blind capable of handiwork can be considered to possess business ability sufficient to conduct business on their own account; the remainder need the fostering care and assistance of the working homes; and in such homes many can earn from \$4 to \$8 regularly per week, — probably in some cases even more than that. Those who are in business for themselves oftentimes have as much as they can do on their own account, especially at chair caning and basket work."

Mr. Fraser: "This question is a large one, and involves many considerations. Congregations of the adult blind cannot work to advantage. My idea is that local workshops, employing from 4 to 6 blind persons, should be established in each city or town which has a population of 10,000 inhabitants. These would not be altogether self-supporting."

Mr. Boyle: "Where the blind have business capacity, there is no doubt they can and do succeed. The Saxon method is very good. Workshops for the blind, such as you suggest, have been tried in England with very great success in the majority of cases."

Miss Moon: "I think the Saxon method most desirable, and also working homes, properly managed, where the blind person has no personal relatives or friends to help him."

Mr. Anagnos: "Even were such a movement successful from a financial point of view, — a fact which has never yet been proved, in spite of repeated experiments in this country, — the idea embodied in the system of working homes is a mistaken one. By the establishment and support of special institutions,

which in reality are almshouses pure and simple, disguised under the misleading name of industrial homes, blind adults of both sexes are segregated from ordinary society and form a sort of community by themselves, which is decidedly injurious to their intellectual, social, moral and spiritual interests. By gathering under its roof not only the good and deserving persons but also a part of very undesirable elements, it lowers the moral standard of the blind, dulls the incentives to honest endeavor, and offers inducements for seeking refuge under it to those who are inclined to be indolent and discontented under the effect of a wholesome discipline. To the careful student and impartial investigator of the facts relating to the prevailing industrial system in the civilized world, in which the use of the iron fingers of machinery of every conceivable kind has rendered valueless those of the human flesh, it is clearly evident that, with the exception of mattress making and of the tuning of pianofortes, there is no manual or mechanical occupation whereby the blind can earn their living, even under the most favorable circumstances."

Such answers as the adult blind themselves give to the inquiry are in the affirmative; but the question occurs whether their views may not spring more from their wishes or feelings than from any judgment based on wide experience and deep study.

3. Are there not occupations yet untried in this country which might prove useful to the blind?

The answers are generally in the affirmative. The occupations themselves, however, must depend upon the neighborhood where the blind live, and such demands of that neighborhood as blind men can train themselves to meet. There are but few things, however, in which they can receive special training at the institutions or at their homes from teachers sent out by the institutions. Whatever they do outside of these things they have to learn to do as best they can.

Mr. Anagnos says: "Conditions are constantly changing, and the occupations for the blind must and will change with the times. Those of thirty years ago can no longer be depended upon for support, and new modes of gaining a livelihood have superseded them and will continue to do so."

In addition to the answers directly given to the foregoing inquiries, interesting statements were made by several of the authorities whose views were sought, of which the following are illustrations:—

Mrs. Laura E. Richards, daughter of Dr. Samuel G. and Julia Ward Howe, says, in a letter: "Of the small number of adult blind persons I have known, the majority show an inexplicable but decided aversion to learning to use raised print." She adds, in a subsequent letter: "The unwillingness of the adult blind to learn has struck me forcibly and painfully. I have seen most, it is true, of elderly men. In the hospital at Togus (Maine) they sit all day with folded hands, but will not make the effort to learn to read, though the raised-type books are in their hands, as it were. One old man, taught by Mr. Breed when he was there, finds the interest of his whole day in reading; with the others, whom this man would gladly teach, I have pleaded in vain. They will not take the trouble."

Mrs. Richards tells of a similar experience with blind women. "As to the weekly newspaper," she adds, "it would, I think, be very welcome, yet I should doubt if the circulation would justify the enormous expense it would require."

Miss Moon says: "The benefit to the adult blind of reading embossed books brought to their own homes is beyond estimation, as it raises their thoughts above their affliction, and causes them to feel that there is something beyond sitting by the fireside dreaming of their loss of sight and thinking that all is against them. They once again raise their heads and feel their hearts throb with expectation; and, as time goes on, they emerge from this slough of despond and long for something more to do, and, if possible, to again endeavor to earn their living."

Home teaching is strongly advocated by Miss Moon, paid teachers going to the homes of the blind, giving them instruction, taking to them suitable books and exchanging them at intervals for others. All this opens the mind, and arouses not unfrequently an ambition to do something further. Then come inquiries as to possible occupations, and the field is ready for beginnings in industrial instruction.

Mr. Fraser, himself a blind man, says: "There is no doubt that something should be done to ameliorate the condition of the adult blind, and in this country we are doing what we can in that direction. . . . While it is advisable in every way to encourage the adult blind to become active and useful men and women, great care should be taken that such encouragement or aid does not tend to pauperize the recipients. The adult blind may be divided into two classes; those who have lost their sight in infancy or youth and who presumably have received such an education and training as fit them to support themselves; and those who lose their sight after reaching the age of manhood or womanhood. For the first class Massachusetts has done nobly, the Perkins Institution for the Blind being recognized as one of the best in the world; for the second class Massachusetts has done little or nothing. The point I would like to emphasize is this: that, in aiding the adult blind who have lost their sight in adult life, great care should be taken to see that the work among the youthful blind is not nullified. In my opinion, the working homes for blind men and blind women in Pennsylvania have tended to lower the standard of individual effort upon the part of the graduates of the Pennsylvania School for the Blind. These homes, which are in large measure charitable institutions, offer to the graduates an assured and comparatively easy way of being supported, and hence as pupils in the school or as graduates the blind are not stimulated to that measure of individual effort which ensures success. If the foregoing point be kept in mind, I certainly would approve, heart and soul, any effort that might be made to improve the condition of the adult blind."

Mr. Boyle writes: "I should like to see home teaching societies throughout the whole of the world, and I cannot understand a man's opposing them. Our experience is that the blind make the best home teachers, and it gives them employment. In London we have a large number of blind people employed in this way. The Indigent Blind Visiting Society employs 12 blind men, and they are paid, I believe, from £60 to £100 per year."

Miss Bainbrigge contributes the following interesting matter

about trades for the adult blind: "We think it, as a rule, better to teach trades to adult blind persons in workshops rather than in their own homes; but we feel sure that their sense of independence is cultivated, and that they are generally happier, if they can live among their own people; so we have not built a home for them, only a factory. This is managed, as far as possible, like ordinary factories; but no interest on capital is taken, and the manager's salary, firing, and all incidental expenses are paid from the endowment fund or by subscriptions."

Mr. Reynolds, a blind man, in his own handwriting says: "Mr. J. N. Breed taught me to read and write the American and English Braille, and I have for three years corresponded with four blind men, whom I have made happy, as well as made myself a great blessing to the blind. Had it not been for it, I think I should have become crazy for the want of something to devote my time to. I have taught two blind men to read, and they are more than pleased to be able to read. Yes, it is a great blessing, and I hope Mr. Breed will meet with success, and see that every adult blind person in the State is taught to read and write, for it is such a comfort. I read and write three alphabets. As for a blind person's working and earning a living, I do not think it can be done."

Miss Lilla H. Albee, a blind person, says: "Till I was about fifty-two I could read; then I lost my sight, which an operation partially restored, but I was not able to read. Two years ago Mr. Breed was in town, and induced me to learn to read New York point. I was nearly sixty, and thought I would not be able to learn, because my touch was not delicate enough. It took three months to fix the characters in my mind, and I often got discouraged. Last winter I read 'Evangeline,' with notes and biographical sketch, and Holmes's poems."

### III. WHAT VARIOUS AGENCIES ARE NOW DOING FOR THE ADULT BLIND AT THEIR HOMES.

What may be said under this head has in part already been anticipated. There is no question but that a keen and active interest in the instruction of the adult blind at their homes is

shown in many countries, not only by private organizations, but by the government. This interest finds effective and economical expression in what are called home teaching agencies. The first home teaching society for the blind in England, if not the first in the world, was started in 1855 by Miss Graham. Dr. T. R. Armitage, in his exhaustive work on "The Education and Employment of the Blind: What it has been, is, and ought to be," published in 1886, reported that at that time there were 79 home teaching agencies in England, Wales, Scotland and Ireland. "Few large towns are without one, and in most parts of the country districts the blind are visited at their own homes by the teachers employed by the societies. Their functions are extremely simple. The blind are visited at their own homes, are taught to read by Moon's system, and when they have learned, have books brought to them, which are changed at stated intervals. Some of the Scottish home teaching societies attempt to start those whom they visit in trades or otherwise to enable them to maintain themselves. Thus, the Glasgow Home Teaching Society, which visits 1,189 of the blind in six of the western counties of Scotland, has started 50 blind as small traders. Employment has been found for 52 others in docks, foundries, etc., and the Ladies' Auxiliary encourages knitting amongst the women. During the last year 95 knitters were employed at their homes, and the sales amounted to £555."

Many of these home teaching agencies, says Dr. Armitage, conceive it to be their duty to spread the knowledge of some particular system of reading to the exclusion of other systems, — as the Moon system to the exclusion of the Braille, or the Braille to the exclusion of the Moon. This narrow view will gradually change to a more liberal one. Two systems, he adds, are necessary to the adult blind, — Moon's for the hard-handed and for those who have no wish for higher intellectual culture, and Braille for the young and intelligent of all ages.

Mr. Henry J. Wilson, secretary to the Committee of Gardner's Trust for the Blind, London, in a report issued in 1896, gives a list of 46 home teaching agencies for the blind in England and Wales. There are, of course, other agencies for teaching or otherwise aiding the blind distinct from these



home teaching agencies. Mr. Wilson gives lists of them for England and Wales, — 25 resident schools, 33 workshops and 8 homes for the blind, 38 societies that provide the blind with pensions and 16 other organizations for variously promoting their welfare.

Mr. Harry S. Prescott, for twenty years head teacher and librarian of the New South Wales Home Teaching Society, in a personal interview with the secretary of the Board, says that there are several home teaching agencies in Australia. These agencies are maintained in part by voluntary contributions and in part by appropriations from the government, the New South Wales Home Teaching Agency receiving from the government £2 for every £1 voluntarily subscribed, until the government aid reaches a maximum of £500. The other agencies are aided on a basis of £1 from the government to £1 from private sources. Hundreds of adult blind people have thus been taught to read at their homes, Mr. Prescott, himself a blind man, having taught some 200. From the twentieth annual report of the New South Wales Home Teaching Society, it appears that 319 blind persons in all have been taught to read by this society, 78 to write the Braille type, 40 to read and write embossed music, 18 to use the typewriter, 14 to write with pencil and raised lines, 25 to make door mats, 24 to cane chairs, 40 to make halters, 19 to net and 10 to knit. The number of volumes of embossed books loaned has reached 40,554. The number of visits made has been 27,337. Four of the pupils taught have established institutions for the blind in other provinces of Australia. These figures, though they cover twenty years, mainly belong, Mr. Prescott says, to the later and more active years of the society. The literature offered to the blind by the Australian societies is in Moon type or in Braille, according to circumstances. When instruction is offered to the adult blind at their homes, about 60 per cent. of them, says Mr. Prescott, desire to avail themselves of it. The population of New South Wales in 1891 was 1,134,207; of Australia in 1891, 3,033,166.

In Germany, said Dr. Armitage in 1886, the universal diffusion of reading amongst the adult blind which has been brought

about by our home teaching societies is hardly thought of; but, on the other hand, the care of blind pupils scattered throughout the country after having learned trades at the institutions is more complete in Germany than in any other country. By this methodical supervision and assistance from 70 to 80 per cent. of the old pupils are enabled to maintain themselves by the trades learned while at school.

In the United States, while commendable work is done in educating blind children, comparatively little has been done for the adult blind at their homes. Home teaching agencies are rare. There is one in Philadelphia, — a private enterprise, — the Philadelphia Home Teaching Society and Free Circulating Library, organized in 1882. It has taught hundreds of the adult blind of Philadelphia. Its library of embossed books, in the Moon type, has been assigned to a special room in the Free Library of Philadelphia. This room is also a free reading room for the blind.

#### IV. WHAT MASSACHUSETTS IS DOING FOR THE ADULT BLIND IN THEIR HOMES.

Massachusetts provides for the education of children who are blind in the Perkins Institution and Massachusetts School for the Blind; also in the Kindergarten for the Blind, which is a department of the Perkins Institution. Annual appropriations are made by the Legislature for the purpose. Blind children are as much entitled to free education as seeing children. It is obviously inexpedient, if not generally impossible, for the several towns and cities to make independent and satisfactory provision for the schooling of their own blind children; the State, therefore, takes the work of schooling them upon itself. There is no charity about it, — it is simply the State's way of completing its public school system. So far as educating blind children, then, is concerned, the State's policy is well defined and settled.

But the question of giving instruction to the adult blind at their homes is a new one for the State to consider. If blind people become helpless or insane, they may be cared for either in local or State institutions. The number of the blind thus cared for in Massachusetts, according to the census of 1895,

was 383. Blindness is a great affliction, — bad enough at the best, but worse for those who have known what it is to see. Among those who have always been blind there is far more contentment and happiness than one would suppose; especially is this true of those who through education have acquired valuable resources. And, even in the case of those who have known the joys of vision, it is largely a question of temperament and intellectual resources whether they are to become reconciled to their deprivation, or not. Still, there are many of this latter class whose thoughts gravitate towards their condition, — towards the darkness, the isolation, the helplessness of it all, — and melancholia or something worse comes on. Or if, retaining their reason, they are without friends and unable to support themselves, then poverty overtakes them. At last they reach the asylum or the almshouse. Here, the public, in the role of charity, cares for them until the end comes.

As a mere question in economics, it is worth asking whether it would not pay, in the long run, to expend a little more money for the prevention of evils the burden of which the public must bear if they are not prevented. The wisdom of the world on this point is crystallized into the homely expression that an ounce of prevention is worth a pound of cure. It is certain that many a blind man can be saved to useful and fairly happy living, to the joy as well as to the relief of the public, if his mind is drawn away by interesting literature from always brooding on himself; if his hands are trained to some helpful occupation; if his self-respect is strengthened by an increasing consciousness of a prowess that blindness cannot extinguish; if, in brief, his ambition is aroused to save something from the ruin he may conceive himself to be. So long ago as 1833, the trustees of the Perkins Institution, then known as the New England Institution for the Education of the Blind, in an address to the public, printed by order of the House of Representatives, and constituting the first report of the institution, declared that its object was an economical one to the community. “It is to take from society,” they said, “so many dead weights, that it is proposed to educate the blind and enable them to get their own livelihood; and society ought to consider any capital so invested as a sinking fund for the redemption of its charitable

debt, as a provision for preventing the blind from becoming a tax to the community. . . . It is alike the character and the honor of the age that society is not content with administering charitable aid to the distressed, but that it seeks to strike at the root of the evil, and prevent its recurrence ; it remains yet for our country to apply this principle to the pauperism of the blind."

The obligation of the State to care for the helpless blind when all else fails them is universally recognized on both its legal and its moral side ; the obligation of the State to prevent such helplessness so far as practicable would seem, from every point of view, to be stronger still. In the Constitution of the State, section 2 of chapter 5, there is ample authority for encouraging agencies for the instruction of the adult blind, whether such agencies are on a literary, an industrial or a charitable basis, or on any or all of them combined. It is as legitimate, for instance, for the State to contribute something for the instruction of the adult blind as for the instruction of adult seeing persons, and to contribute for the former purpose through the agency of the Perkins Institution for the Blind or some other organization as for the latter purpose through the agency of the Massachusetts Institute of Technology or the ~~Amherst~~ *Massachusetts* Agricultural College.

In England the education of blind children is compulsory. In Massachusetts it is practically voluntary. To be sure, all children between seven and fourteen must attend school unless their physical or mental condition renders such attendance inexpedient ; but blindness has usually been held to be a condition justifying non-attendance. The Perkins Institution does not reach all the blind children of the State ; but, had it done so from the beginning up to the present time, it would have reached but a small proportion of the adult blind. While it is understood that a portion at least of the funds of the Perkins Institution might be used for adults, if the trustees so desired, the policy of the institution seems to have been to concentrate its resources on the education of blind children. The institution does something, however, for the adult blind : —

I. By means of a workshop, in which a few blind people of the neighborhood are employed.

II. By means of the Howe Memorial Press, which prints books in raised Roman letters for the blind.

III. By means of the library of the institution, whose books are freely offered to the blind.

IV. By means of a society of its graduates, which has just taken up the work of teaching the adult blind at their homes.

As to the workshop, it does excellent service, so far as it goes ; but it reaches less than one per cent. of the adult blind of the State. The salaries and wages paid to the blind there amount to only four or five thousand dollars a year. The shop just about pays its way. So long as it does that, or comes somewhere near it, it cannot be pronounced unsuccessful. The work spirit should be encouraged in the adult blind, wherever practicable.

As to the Howe Memorial Press, it answers admirably for those who are trained to read the Roman type, — that is, for the pupils and graduates of the Perkins Institution and for a few others. The great majority of the adult blind, however, coming to their blindness, as they do, after their childhood has passed, cannot use this type or any other until they have been taught. Whatever the system they attempt to use, it should be easy to learn, and, when learned, it should admit the learner to a generous literature. As a rule, the difficulty of learning to read from embossed type increases with age. The world's drift seems to be towards a point system for the blind rather than a line system, — that is, towards a system whose letters are represented by points variously arranged rather than a system whose letters are represented by continuous or unbroken lines, as in the case of ordinary Roman letters.

The Braille system is a point system ; it is the system that, either in its original form or in those modifications of it known as the New York point and the American Braille, seems to have won the world. This system is easily written, as well as read, and is used almost universally for musical notation.

There is a very simple line system, devised by Dr. Moon and based on modifications of the ordinary Roman letters. It answers well for those whose fingers are hard and dull, for the aged, and for those who wish to learn to read in the quickest possible way, but who do not care to learn to write.

Under the circumstances, the Howe Memorial Press can hardly expect to serve many of the adult blind outside of those trained to Roman line in their youth. It must be content with its own field, — a field that seems to be growing relatively smaller than larger. Mr. B. B. Huntoon, secretary of the American Printing House for the Blind at Louisville, informs the secretary of the Board that the line letter is going out of use, although it is still taught “to a limited extent in some of the schools, — in 4 or 5, I suppose.” There are 42 schools in the United States for the blind. While a few of them, like the Perkins Institution, use the Roman line, they all teach a point system, — about 75 per cent., according to Mr. Huntoon, using the New York point and 25 per cent. American Braille. The American Printing House for the Blind at Louisville was organized in 1858, in accordance with an act of the General Assembly of Kentucky. In 1879 the Congress of the United States set apart \$250,000 as a perpetual fund for this institution, the income to be expended in manufacturing and furnishing embossed books, to be distributed among the public institutions for the education of the blind in the United States.

In a list of school books published by the American Printing House, 68 are in Roman line and 101 in New York point; in general literature, 131 books are in Roman line, 227 in New York point and 284 in American Braille; in music, 141 pieces are in New York point.

The distribution of books among the different types for the entire output of the American Printing House from the beginning does not show the tendency of the distribution. Among the by-laws adopted in 1888 was one requiring that 50 per cent. of the books to be printed thereafter should be in the New York point system, — a rule suggestive of a changing attitude as to the duty of the Printing House.

Of the adult blind who read, — presumably persons taught to read in their childhood, — Mr. Huntoon thinks that about one-half still call for the Roman line. It should not be overlooked, however, that but few relatively of the adult blind are able to read embossed books at all, never having been taught to do so.

The diversities of type used for the blind; the advantages as well as disadvantages that characterize each system in use; the

existence of considerable bodies of literature in the several types, each type having some not owned by the others; and a certain natural loyalty of students to the particular type mastered by them, — all these things keep the battle of the types raging, to the embarrassment of those who are seeking the most effective means of teaching the adult blind to utilize their narrowed resources. Mr. Huntoon says: “I thoroughly agree with Mr. Anagnos, who once said: ‘If any one attempts to invent a new alphabet for the blind, shoot him on the spot.’” Some of the older systems have practically gone out of use; of existing systems, some are gaining and some losing.

As to the library of the Perkins Institution, that contains 12,821 volumes in the different sorts of types. This does not mean so many different works. Embossed letters are large, and require much room. Works complete in a single volume of ordinary type require numerous volumes when raised type is used. Thus the Bible, which is usually printed in one volume of Roman type for seeing people, requires eight volumes or more when printed in raised Roman type, twenty-five or more when printed in Braille, and sixty-four volumes when printed in Moon type. The books of the library are loaned to the blind of the United States. The annual circulation of books from this library for the United States, including Massachusetts, is 600; for Massachusetts, 500. The trustees of the institution are willing to furnish books in any type to the blind. They say, in their report for 1899: “Our efforts to add to our collections a large number of books in raised characters of every kind and to render them more accessible and useful than ever before to all classes of readers have met with a great measure of success. Our library is open, free and without charge, to those who desire to derive benefit or comfort from the contents of its capacious shelves. No negative reply is ever given to blind persons who apply to us for reading matter in embossed print.” The graduates of the Perkins Institution almost without exception keep in touch with the library. No information could be given by the institution as to the circulation of its books in Massachusetts outside of its graduates. One is left to infer that it is very small, at the best. Embossed books cannot be expected to circulate much among blind people who

cannot use them. Blind people have to pay their own postage on books. This is a very heavy burden, on account of the bulk of the books. In 1898 the Parliament of Canada authorized the transmission of raised print books for the blind free of cost through the mails. The postage both ways, for instance, on a Braille edition of the Bible in twenty-five volumes used to be \$9.60, and on other books in the same proportion, — a burden that was almost prohibitive. That is to say, blind people, who are more dependent on reading than any other class, who have less facilities for reading than any other class, who are compelled more than any other class to rely on distant libraries and the use of the mails for reading matter, are obliged to pay for the transmission through the mails of any printed work several hundred per cent. more than any other class, though far less able than any other to do so. This comes about, indeed, from their infirmity and the coarse printing necessary to meet it; but it is a situation, none the less, that the government might properly relieve. The trustees of the Perkins Institution have expressed an earnest hope that such relief may be granted.

A large proportion of the adult blind of Massachusetts are still beyond the reach of the library of the Perkins Institution, however precious that library may be to the relatively small proportion who have been taught to read raised type.

The home teaching work encouraged by the institution is creditable, so far as it goes. A society of alumnae of the institution was organized in 1885. It numbers about thirty members. It took up the subject of home teaching in 1898. Half a dozen members have done something in this direction, in a voluntary way. Some twenty-five or thirty blind persons have availed themselves of the privilege of instruction offered them. They have all been taught the Roman line type. The work is all the more creditable, because its initiation is with the blind themselves; but, while it bears witness to their nobility of spirit, it is necessarily, under present conditions, on too small a scale and too uncertain a basis to serve the great body of the adult blind. The trustees have granted a little money (\$100 for travel, postage, etc.) to encourage the work; thus, on the one hand, recognizing the existence of a



certain need for it; and, on the other, of a certain obligation on their part, as trustees of funds bestowed for the welfare of the blind, to meet this need. Are the trustees free to do more in this direction, if they should desire to do so? Is it their duty to do more in this direction, if they are free to do so? These are fair questions to ask, but answers to them have not yet been sought. The presumption is that the Perkins Institution and Massachusetts School for the blind, though primarily absorbed in the education of blind youth, is able and willing to do much more for the home instruction of blind adults, especially if the home teaching movement has the sanction of State recognition and aid.

There is a direction in which the work of the Perkins Institution might be extended with profit. Under its rules no pupil older than nineteen is admitted. The blind should, indeed, begin their schooling early; full advantage should be taken of the plastic years. But blindness has a way of coming on while these formative years are slipping away, and of becoming complete after they are gone. It is idle, of course, to tell a youth who becomes blind at nineteen that he should have entered the Perkins Institution at nine; and it may not unfrequently involve a hardship to bar out after nineteen one who was blind at nine. Seeing pupils have a legal right to attend the public schools until they are twenty-one, and it is rarely, if ever, that they are barred out after that age; while public evening schools are as free to adults of any age as to younger persons. Why might not the age limit for admission to the Perkins Institution be raised a little. The stay of pupils admitted after nineteen might properly be less than that of pupils admitted earlier. Indeed, the Halifax School for the Blind has adopted precisely this policy of admitting older persons, with reduced stay. To such a policy the State might properly assent, though it would increase a little the number of pupils for whose education it contributes payment, for the policy would be in line with the State's educational ideals for seeing people. Such a policy would slightly reduce the field for home teaching work.

V. FURTHER PROVISIONS, IF ANY, NEEDED TO PROMOTE THE HOME INSTRUCTION OF THE ADULT BLIND IN MASSACHUSETTS.

It appears from the foregoing considerations that, while Massachusetts is doing well in both public and private ways for the schooling of blind children, and therefore for their welfare when they are grown up, she is doing almost nothing for the welfare of that relatively large number of persons who become blind after the school years are passed.

The proposition to organize a State printing establishment for a weekly newspaper for the blind may properly be dismissed for the present, if not for good. The news of the day can generally be obtained from seeing people. What is printed for the blind is too slowly and expensively produced to justify issuing much of an ephemeral sort. As a result, the literature now available for the blind is of a high and valuable order. The infirmity of the blind has one advantage, therefore, — it saves them from the diffuse inferior matter that is now-a-days served up in so vast quantities for seeing people. The weekly newspaper in embossed type will come into existence as soon as some prospect of a constituency demanding it begins to appear. The more generally the adult blind are taught to read, the brighter this prospect will become. Indeed, there is a weekly newspaper already for the blind, published in Milwaukee, in New York print. Then there are two monthly magazines for the blind printed in Philadelphia, — “The Point Print Standard” and “Kneass’ Philadelphia Magazine for the Blind,” the former in New York point and the latter in Roman line. Each of them reviews the important news of the world. There are also some English periodicals for the blind. Some of these, to be sure, are of a religious character; if less welcome in some homes for this reason, they would be all the more welcomed in others. The field of blind readers is a small one, at the best. In view of all the conditions, the periodical matter available for the field can hardly be called inadequate. At any rate, it would seem to be wiser, for the present, to bring existing periodicals to the attention of blind readers, than to start new ones for them.

The proposition that the State should encourage the home

teaching of the blind merits favorable consideration. A small expenditure here will go a great way, especially if it should be deemed expedient to condition it upon a certain expenditure from private sources, — a policy that has worked well for many years in Australia. The work of home teaching might be profitably entrusted in part or in full to competent blind persons. They would work for modest pay, the service would be congenial to them, and they would be especially fitted to carry sympathy, patience and inspiration to people afflicted like themselves. Here is a field in which the blind, contrary to the old saying, have frequently proved excellent leaders of the blind.

What is the service the home teacher can render?

1. He should search out the blind in their homes, and tell them what it is possible and desirable for them to do in the way of learning to read and to write. He should not be so wedded to a single system as to urge that, and that only, upon his pupil; but he should fairly make known to him the advantages and disadvantages of the two or three most used systems, and guide him to that choice which best suits his conditions. That choice, in the case of the aged, the hard-fingered, the indocile, may be the easy Moon system; in the case of younger and more docile persons, whose touch is acute, it may be Roman line or Braille or New York point. Theoretically, it would be better if all the blind were able to read in but one system, and all the literature for them were in that system; but practically people have not agreed upon one system, nor is there any present possibility of such agreement.

2. He should give the blind instruction under the systems thought to be, on the whole, best adapted to their respective conditions.

3. He should bring suitable literature to the attention of the blind, assist them in making their choice of reading material, and so arrange exchanges of books as to make it easy for the blind to utilize the resources of the Perkins Institution library, or of any other that provides books for the blind. The home teacher thus does for the blind what the well-managed public library does for the seeing.

4. He should make known to some of the unemployed blind the possibilities of occupation for them. These are more

numerous than commonly supposed.\* Blind people whose minds are opened and quickened by their general reading, as well as by conversation with a sympathetic and inspiring teacher, are a little more ready to receive information as to what blind people have done, and what they themselves may, with proper effort, train themselves to do. The home teachers might themselves give industrial instruction, each in a line or two mastered by himself, or pave the way for persons competent to do so.

5. He should find out the educable youth among the blind, and secure their presence at school.

6. He should know something about the precautions necessary to head off possible or threatening blindness. In the case of infants, a large percentage of their blindness is preventable; much of the blindness that comes from excessive or wrong use of the eyes in youth is also preventable; and the same is true of some of the blindness that comes to adults. Parents, physicians and teachers in the schools frequently have grave responsibilities in cases that fall to their care or may otherwise come under their notice. How far the home teacher can be of service in saving people's eyes from needless impairment or destruction, one cannot say; but some of the organizations for helping the blind have deemed it an important part of their work to disseminate information for this purpose.

7. And, in general, the home teacher, if wisely chosen, may be expected in the foregoing ways, and doubtless in others, not only to promote the welfare of the adult blind, but also to serve the State in discharging its recognized duties in connection with this specially afflicted class.

#### RECOMMENDATIONS.

In order that there may be definite propositions for consideration, it is recommended:—

1. That the Legislature appropriate a suitable sum for the purpose of giving the adult blind such instruction at their homes as has been substantially outlined in the foregoing report.

2. That such sum be placed at the disposal of the Perkins

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\* See, for instance, "A few curious employments followed by the blind," by G. W. Boyle, British and Foreign Blind Association, London.

Institution and Massachusetts School for the Blind, to be expended by said institution for the purpose indicated, in accordance with a plan to be approved by the State Board of Education before any expenditures are made.

3. That the Perkins Institution and Massachusetts School for the Blind be required to make an annual report to the State Board of Education upon its home teaching work and expenditures therefor.

The following bill reflects the foregoing recommendations : —

AN ACT TO PROMOTE THE INSTRUCTION OF THE ADULT BLIND AT  
THEIR HOMES.

*Be it enacted, etc., as follows :*

SECTION 1. There shall be annually allowed and paid from the treasury of the Commonwealth a sum not exceeding five thousand dollars, to be expended by the Perkins Institution and Massachusetts School for the Blind, for the instruction of the adult blind at their homes; but no expenditures shall be made under this act by said institution until the plans therefor have received the approval of the state board of education. It shall be the duty of the institution aforesaid to make an annual report to the state board of education of the progress and condition of its work under this act.

SECTION 2. This act shall take effect upon its passage.

Doubtless several questions will arise in connection with the foregoing bill. Is it desirable, for instance, to limit the appropriations to a period of years, on the theory that the policy is a tentative one, to be renewed or abandoned when the stated period expires? Is it expedient, again, to appropriate a minimum sum each year unconditionally, — enough, at least, to insure for the plan a fair trial, and to make an additional approximation, up to a stated maximum, depend upon equivalent private contributions for the same purpose? Questions like these merit thought, but they can be answered better after an experience of a year or two under a simple measure like the one proposed.

Respectfully submitted for the State Board of Education by

FRANK A. HILL,

*Secretary.*



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APPENDIX G.

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REPORT ON COUNTY TRUANT SCHOOLS.

BY FRANK A. HILL, SECRETARY OF THE BOARD.

*Based on Reports by Superintendents of the Truant Schools, by John T. Prince, J. W. MacDonald and G. T. Fletcher, Agents of the Board, and on Information from Other Sources.*

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## COUNTY TRUANT SCHOOLS.

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*Visitation by the State Board of Education.* — The Legislature of 1898 ordered that county truant schools should be subject to visitation by the State Board of Education and by the State Board of Charity, and that said boards should report thereon annually to the Legislature.

Accordingly, agents of the Board have visited the different county truant schools, and made reports thereon to the secretary of the Board. From their reports as well as from such other sources as are available, the material of the present report has been prepared.

*County Truant Schools of the State.* — The following table gives a list of the different county truant schools in the State : —

County truant schools.	Location.	Superintendent.	No. of pupils.
Essex, . . . . .	Lawrence, .	H. E. Swan, .	36
Hampden, . . . . .	Springfield, .	E. G. Ward, .	26
Hampshire and Franklin, . .	Goshen, . . .	W. A. Barrus,	—
Middlesex, . . . . .	No. Chelmsford,	M. A. Warren,	116
Norfolk, Bristol and Plymouth, .	Walpole, . . .	J. H. Craig, .	50
Suffolk, — Boston Parental, .	West Roxbury,	Buel C. Day, .	196
Worcester, . . . . .	Oakdale, . . .	F. L. Johnson,	28
Total, . . . . .			452

The counties of Barnstable, Berkshire, Dukes and Nantucket are by law exempted from maintaining truant schools of their own, but the county commissioners of each of these excepted

counties are authorized to avail themselves of any existing county truant school as a place of commitment.

### ESSEX COUNTY TRUANT SCHOOL.

#### SUPERINTENDENT'S REPORT.

*Receipts and Expenditures.*—Receipts and expenditures for the year ending Dec. 31, 1900, were as follows:—

Amount received from towns and cities for board of boys, . . . . .	\$1,926 92
Amount received from farm sales, . . . . .	1,532 97
Amount received from chair seating, . . . . .	552 97
	<hr/>
Paid county treasurer, . . . . .	\$4,012 86
Net cost of school, . . . . .	5,592 55
	<hr/>
Total drawn from appropriation, . . . . .	\$9,605 41

*Commitments and Discharges.*—Statistics of commitment and discharge for the year ending Dec. 31, 1900, are as follows:—

Boys in school Jan. 1, 1900, . . . . .	41
Committed during the year, . . . . .	23
Returned to school, . . . . .	1
	<hr/>
	65
Discharged, . . . . .	30
Released on probation, . . . . .	2
Eloped, . . . . .	1
Remaining in school Jan 1, 1901, . . . . .	32
	<hr/>
	65
Boys 15 years old when committed, . . . . .	2
Boys 14 years old when committed, . . . . .	5
Boys 13 years old when committed, . . . . .	3
Boys 12 years old when committed, . . . . .	4
Boys 11 years old when committed, . . . . .	4
Boys 10 years old when committed, . . . . .	2
Boys 9 years old when committed, . . . . .	1
Boys 8 years old when committed, . . . . .	2
	<hr/>
	23
Sentenced for 2 years, . . . . .	5
Sentenced for 1 year, . . . . .	16
Sent by parents, . . . . .	2
	<hr/>
	23
Committed for truancy, . . . . .	19
Committed for wandering about streets, . . . . .	1
Committed as habitual absentee, . . . . .	1
Committed by parents, . . . . .	2
	<hr/>
	23

Committed from Lynn, . . . . .	15
Committed from Lynn (by parents), . . . . .	1
Committed from Lawrence, . . . . .	2
Committed from Marblehead, . . . . .	1
Committed from North Andover, . . . . .	2
Committed from Andover, . . . . .	1
Committed from Stoneham (by parents),. . . . .	1
	<hr/> 23
Number who could read and write, . . . . .	17
Number who could read, . . . . .	1
Number who could neither read nor write, . . . . .	5
	<hr/> 23

*Manual Work of the Boys.*—During the summer months the boys were employed on the farm. About fourteen acres were devoted to vegetables and small fruit, and an abundance of these was raised and marketed, besides a liberal quantity reserved for home use, the boys enjoying fresh vegetables daily during their season. Twelve acres of land furnished the hay supply, which was also cared for, in part, by the boys. Since the harvesting the boys have been engaged in chair-seating. This work includes re-seating chairs sent from the city, and new work received from the factory. Arrangements are now being made for class instruction in carpentry. A dynamo may be added to furnish power for a lathe and whatever other machinery may be considered essential. The boys attend school four hours each day, five days in the week, and are taught primary and grammar school studies.

Respectfully submitted,

H. E. SWAN,  
*Superintendent.*

#### AGENT'S REPORT.

Mr. Fletcher, agent of the State Board of Education, reports as follows:—

*General Survey of the School.*—I visited this school Jan. 30, 1901. The building is not new, but, excepting the basement, is quite well adapted to the needs of the school. The study and recitation room is not well ventilated, and has not the modern attractions and conveniences that should belong to such a room. The dormitories are light and airy. During the forenoon the boys worked about the house, in the barn and in the shop, having two recesses. The manual training consisted of bottoming chairs and making boxes, the latter, a new depart-

ure, made possible by the introduction of benches and tools. The boys manifested much interest in the new work. The grounds contain over thirty acres, adapted to grass and other field crops and to gardening and fruit raising. In addition to the usual house, barn and shop work, the boys find most healthy and profitable employment on the farm and in the garden. The ground is kept under a high state of cultivation, yielding bountifully for home use, with a surplus for the market. The boys seemed to be interested in all the varieties of work in and out of doors. Care of rooms and clothes, cooking in the kitchen, washing and ironing in the laundry, and doing house and barn "chores," give a variety to routine work. The most healthful and valuable occupation is on the farm and in the garden. Agriculture is the "open door" of industry, free from restrictions and strikes. Farmers are calling for young men of good habits, industrious and skilful. The truant schools, under present and improved management, will place many of the older boys in good positions on the farms.

Mrs. Leon Swan held an afternoon session of school, opening it by recitation of Bible verses and memory gems, followed by singing. Mrs. Swan is a teacher of natural ability and experience, and her management of the school was creditable to her knowledge and skill. The pupils gave evidence of interest and progress in their studies. The school has quite a library, and the pupils are interested in reading.

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### HAMPDEN COUNTY TRUANT SCHOOL.

#### SUPERINTENDENT'S REPORT.

*Commitments and Attendance.* — The following report is for the year ending Sept. 30, 1900: —

Number of boys in school Sept. 30, 1899, . . . . .	25
Committed during the year, . . . . .	27
Discharged during the year, . . . . .	26
Remaining Sept. 30, 1900, . . . . .	26
Average number for the year, . . . . .	25
Number of different boys during the year, . . . . .	52
Greatest number at one time, . . . . .	29
Lowest number at one time, . . . . .	22

Of those committed, 1 was an habitual offender; 5, habitual absentees; 21, habitual truants. Of those released, 17 were discharged at the expiration of their sentences, 6 by order of the court, 2 paroled by the county commissioners and 1 eloped. Of the number committed, 17 could read and write, 5 could barely read and write and 5 could neither read nor write. Four are in school for a second term. Of the 5 habitual absentees, 2 were fifteen years old, 2 fourteen years old and 1 thirteen years old. Of the 27 boys committed, 21 were cigarette smokers.

*Expenses.*—The total expenses for the year amounted to \$6,540.36. The total income from board of truants was \$2,172.75. The net cost of maintenance was \$3.36 per capita per week.

*Repairs.*—An improved system of ventilation has been put in the schoolroom and dormitories, — a much-needed improvement. The ceilings of the schoolroom and large dormitory have been sheathed in pine, which adds to the comfort and safety of the boys. More room will be needed for work and recreation, if our numbers continue to increase. The average number has increased from 13 in 1896 to 25 in 1900. In 1899 the number was 28, — more than double the number in 1896.

*Crops.*—Owing to the extreme dryness of the season, the amount of produce raised on the farm was considerably below the average, but of good quality.

*Health.*—The health of the boys has been excellent during the year. There has been no serious sickness for more than four years.

*School Instruction.*—In school instruction we have followed the same line as last year, aiming at all times to make the boys' education as practical as possible, especially trying to cultivate a taste for reading suitable books and the daily papers. The boys are very much interested in their manual training lessons, and some excellent work is done.

*The Boys after Discharge.*—We have noticed during the past year that several of the boys after having been discharged have been before the courts for larceny or breaking and entering. In almost every case they were boys who had a record before being committed to the truant school. Owing to their



## Birthplace of boys committed during the year :—

Massachusetts, . . . . .	16
Connecticut, . . . . .	2
New York, . . . . .	2
Vermont, . . . . .	1
New Jersey, . . . . .	1
Montana, . . . . .	1
Canada, . . . . .	1
Ireland, . . . . .	1
Germany, . . . . .	1
Austria, . . . . .	1
	<hr/>
	27

## Domestic conditions of boys committed during the year :—

Father dead, . . . . .	3
Mother dead, . . . . .	7
Parents separated, . . . . .	5
	<hr/>
	15

## Parentage of those received during the year :—

American, . . . . .	2
Irish, . . . . .	18
French, . . . . .	3
German, . . . . .	2
Polish, . . . . .	1
Scotch, . . . . .	1
	<hr/>
	27

## Nativity of parents of boys committed during the year :—

Father born in United States, . . . . .	6
Father foreign born (including 3 from Canada), . . . . .	19
Unknown, . . . . .	2
Mother born in United States, . . . . .	5
Mother foreign born (including 3 from Canada), . . . . .	20
Unknown, . . . . .	2

ERWIN G. WARD,  
*Superintendent.*

## AGENT'S REPORT.

Mr. MacDonald, agent of the State Board of Education, reports as follows :—

In accordance with the secretary's instructions to visit the Hampden County Truant School, I did so Monday, February

18, and was kindly given by the superintendent, Mr. Erwin G. Ward, every opportunity to see the condition and working of the school. Besides the superintendent, there are three other persons directly charged with the care of the boys: a male assistant, who has special oversight of their work and play; a female teacher; and Mrs. Ward, the matron, who does all in her power to make the life of the boys as pleasant and morally uplifting as possible.

The school is capable of conveniently taking care of about 30 pupils, and has at present 28. Of this number, 14 are from Springfield, 11 from Holyoke and 1 each from Westfield, Adams and Pittsfield. If one should infer from this that the boys of Holyoke and Springfield are more inclined to truancy than those of other places, the inference would probably be wrong. It is more likely that the truancy laws are more laxly enforced elsewhere. Of these boys, eight from Holyoke are on two-year sentences; all the rest, I understand, were sentenced for one year except one of the Berkshire County boys, who had been sentenced for ten months, just to cover the ten months of the school year. Was this done to save the expense of keeping him in the school during the summer vacation? Is it held that the whole responsibility of the public for such boys ends with keeping them from running away from school? Is it more important to save a little money than to save a human being? One advantage that the truant school has over the public school, and the one thing that enables it to keep its pupils along with the work done in the public school, is, that its instruction goes on the year through. A boy who may not be up with his public school grade in June is likely to be in September, and to be able to keep on with the work of the public school to which he is returned without too many discouragements; otherwise he becomes a truant again, as he is very likely to become if set free from the truant school in June. In dismissal with such consequences is there economy?

The ages of the boys range from nine to fifteen. There are three boys of the last-named age. Mr. Ward reports that there were for several years very few attempts to escape from the school. On the admission of these older boys, two of them, who had travelled quite extensively by "jumping freight



trains," with their stories, excited in the younger boys, who regarded these two as heroes, a disposition to get away.

In the day school these 28 boys are classified into five grades under one teacher. The course of studies has, therefore, to be pretty closely confined to essentials; but in the subjects taught I found the teacher giving the pupils a good drill. The reading was fairly good, as good as the average in the public schools, and there were evidences of a thorough training in the processes of arithmetic. The pupils showed the most interest in history and geography, — that is, in those subjects so far as they deal with mere facts. The typical truant, it seems to me, does not take to studies that require sequence in thinking. He cares almost nothing for cause and effect. Even when he likes the incidents, he does not want to bother with their relations. His mind works in separate pieces, as it were. Hence theories of teaching that may be good for normal children do not always hold in truant schools. Along lines of general instruction, teaching that would be ordinarily condemned as mechanical is often the most successful with truants. The chief thing is to drill into them good habits, as an offset to their own bad inclinations.

There is one thing that seems to me noticeable in regard to such of these boys as might be called natural truants, — special aptitudes appear to be more common and more manifest in them than in normal children. I do not mean that the aptitudes are greater, but that they are more prominent by the shrinking away, as it were, of their other faculties. Their education, I believe, would be productive of more permanent good if these aptitudes could be more fully satisfied. There is very little provision made for this in the course of studies at the Hampden County Truant School. The pupils have some training in music, which they seem to enjoy, but there is practically no drawing, and the manual training is of the most limited kind. Each pupil has a small box of tools, comprising a jack-knife, a gauge, a try-square, a rule and dividers. Small pieces of one-eighth inch whitewood boards are furnished, out of which the pupils make boxes, card cases, spool boxes, etc., on which are carved simple designs, all under the direction of the same teacher who gives the other instruction. The boys

enjoy this work, and it should be said that most of the articles are quite well made, in view of the fact that the only cutting instrument allowed the boys is the jack-knife. They are encouraging prophecies of what might be accomplished with better facilities. This manual training is better far than none; but I fail to see how learning to use a jack-knife is to open to these boys later in life many lucrative occupations. One thing may be said in favor of limiting the boys to the jack-knife for their cutting instrument, — it makes the process of manufacture very slow, and so reduces the cost of whitewood boards to a minimum.

In summer the boys have a large part of the farm work to do, and, as a rule, enjoy it. Besides the large garden, in which all work, each boy is given a small patch of ground of his own. On this he plants whatever he pleases, he takes care of it as he pleases, and whatever he produces on it is his exclusively. This appeared to me an excellent device.

On the whole, the school is in good hands and in good condition, save the limitations for which the superintendent is not responsible.

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#### TRUANT SCHOOL OF HAMPSHIRE AND FRANKLIN COUNTIES.

The Truant School of Hampshire and Franklin Counties is located at Goshen, in Franklin County. In the sixty-second report of the Board a description was given of the farm and buildings. There has not been an inmate of the school since November, 1898. The sixty-third report of the Board refers to the inadequate equipment of this school and its lack of members in the following language:—

This is more likely to indicate lax enforcement of the attendance laws in these counties than any extraordinary response to them by the school children. For a condition of non-truancy it matters little, of course, whether the Goshen school is well equipped or not. But for a condition of truancy that doubtless approaches the average of the State, the equipment of the school is entirely inadequate. This is not the fault of the worthy people in charge, who undoubtedly make the most of a plant never designed for a truant school, but of the coun-

ties rather, whose duty it is to make adequate provision for their truants, and of the towns therein, whose duty it is to keep young people within the compulsory age limits at school.

Mr. Prince, agent of the Board, remarked of the school a year ago as follows : —

The absence of boys here for an entire year naturally suggests inquiries as to the reason. Is it because there are no truants or incorrigibles in these two counties? Or are the conditions such as to deter the authorities from sending the offenders here? Or are the authorities lax in the exercise of their duties?

On the very day of my visit to Goshen I found a boy in an adjoining town who had been out of school for the greater part of six months. A visit to the truant officer disclosed the fact that he knew of the offence, *but didn't know what to do first*. Such neglect only emphasizes the need — so urgently presented by those familiar with the truancy situation — of a State attendance officer.

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## MIDDLESEX COUNTY TRUANT SCHOOL.

### SUPERINTENDENT'S REPORT.

*Commitment and Attendance Facts.* — The following data are for the year ending Dec. 31, 1900 : —

Boys in the school Dec. 31, 1899, . . . . .	116
Admitted during the year, . . . . .	74
Discharged during the year, . . . . .	70
Remaining Dec. 31, 1900, . . . . .	120
Average number for the year, . . . . .	116

Of those committed, 69 were habitual truants, 3 were absentees from school and 2 returned from probation.

Of those released, 59 were discharged by expiration of sentence, 10 were released upon probation and 1 died.

Of the number committed, 60 could read and write, 2 could only read and 12 could neither read nor write.

The whole number of different boys within the year was 190 ; average number, 116.

More pupils have been released upon probation than in other years, but none so released have been returned to the school.

*Expenditures and Receipts.* — The current expenses for the year amounted to \$17,991.31, or \$2.98 per capita per week. The amount collected and paid to the county treasurer from cities and towns for the support of pupils was \$6,464.42, and from sundry receipts, \$30.40; total, \$6,494.82. The net cost per capita was \$1.95 per week.

*School Instruction.* — In school instruction we have followed the same line as in other years, and with the same aim, — that of training the pupils intellectually, and endeavoring by precept and example to elevate their thoughts and purposes. Pupils in the lower primary grades attend school five and one half hours daily; in other grades, three hours, with one and one half hours of sloyd.

We have organized a band, with fifteen pieces at the present time, namely, 3 clarinets, 3 cornets, 3 altos, 1 baritone, 2 tubas and 3 tenors. Drums and cymbals will be added in the near future. Pupils in the band receive two and one half hours instruction daily. Instruction in vocal music has been given as in former years.

*Statistics.* — Ages of boys committed during the year: —

Between 7 and 8 years,	.	.	.	.	.	.	.	2
Between 8 and 9 years,	.	.	.	.	.	.	.	4
Between 9 and 10 years,	.	.	.	.	.	.	.	6
Between 10 and 11 years,	.	.	.	.	.	.	.	8
Between 11 and 12 years,	.	.	.	.	.	.	.	17
Between 12 and 13 years,	.	.	.	.	.	.	.	11
Between 13 and 14 years,	.	.	.	.	.	.	.	22
Between 14 and 15 years,	.	.	.	.	.	.	.	3
Between 15 and 16 years,	.	.	.	.	.	.	.	1

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Birthplace of boys committed during the year: —

Massachusetts,	.	.	.	.	.	.	.	51
New Hampshire,	.	.	.	.	.	.	.	2
Connecticut,	.	.	.	.	.	.	.	1
New York,	.	.	.	.	.	.	.	3
Canada,	.	.	.	.	.	.	.	7
England,	.	.	.	.	.	.	.	2
Italy, . .	.	.	.	.	.	.	.	3
Sweden,	.	.	.	.	.	.	.	1
Unknown,	.	.	.	.	.	.	.	4

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74

Domestic condition of the boys committed during the year : —

Father dead,	.	.	.	.	.	.	.	.	14
Mother dead,	.	.	.	.	.	.	.	.	15
Both parents dead,	.	.	.	.	.	.	.	.	2
Parents separated,	.	.	.	.	.	.	.	.	2

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#### AGENT'S REPORT.

Mr. Fletcher, agent of the State Board of Education, gives a general survey of the school, as follows : —

*Middlesex County Truant School.*—I visited this school Jan. 31, 1901. It is a large school; 116 boys were in attendance. There are two large brick buildings for the uses of the school in general and a fine house for the superintendent.

The farm is not large and the ground not very good for crops. It has been reclaimed from a forest largely by work of the boys. Dressing and draining have made the land quite productive, so that considerable farming and gardening are possible.

The building designated as the office is commodious, attractive, and admirably adapted to the accommodation of the pupils. The dormitories and schoolroom are large and modern in arrangements. In another large brick building the manual training room is located. This is well supplied with benches and the best of tools for the sloyd work. Under the direction of a teacher, the boys have made good progress, the product of their industry being highly creditable. In a large room of this building the boys' brass band was practicing. The superintendent believes in the development of any latent talent in boys that may bring them profit and pleasure. Some of these boys may become skilled musicians, as the result of practice here. A large sleeping hall, kitchen, dining room, laundry, schoolroom, and rooms for the officer, matron and teachers are in this building. The boys have work to do in all of the rooms of the two buildings, in the barn and on the farm.

The school is in four classes or grades. I spent some time in the schoolroom with Miss Erskine and her large class of boys. She is an excellent teacher, deeply interested in her pupils, understanding their needs and tendencies, adapting her instruction to a development of thought and expression stimulated by interest.

Under the excellent management of Superintendent Warren, eminently the right man for the place, the school is doing a great and good work.

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# TRUANT SCHOOL OF NORFOLK, BRISTOL AND PLYMOUTH COUNTIES.

## SUPERINTENDENT'S REPORT.

We commenced the year 1900 with 50 boys, had committed during the year 66 and discharged 56, leaving in the school Jan. 1, 1901, 60 boys. The average number for the year was 63. The commitments were mostly for truancy, but we had 6 boys committed during the year as habitual absentees. These boys were over fourteen years old, large, well developed and able to do a man's work. They were really fit subjects for our State school at Westborough, but wholly unfit to put into such a school as this. A number of boys have been pardoned or paroled during the year, which always works unfavorably for the school, causing discontent among those remaining.

Cost of the school for the year, . . . . .	\$10,707 60
Collected from towns for board, . . . . .	\$3,280 06
Sales, etc., . . . . .	344 03
	<hr/>
	3,624 09
Net cost, . . . . .	\$7,083 51
Net cost per capita, . . . . .	2 15

The special work of the year has been to find room for the boys, and to do what we could for their benefit mentally and physically. We have been crowded in every department. Some of the boys were kept out of school a few days at a time, for want of school accommodations, as we could only accommodate about 60 in the schoolroom at once. During part of the year we have had two teachers, but they worked at a disadvantage, because most of the work had to be done in one room. The school work has been under competent and experienced teachers. More individual work has been done for the boys than ever before, and it has been of great benefit.

The pressing need of the school is a division, so that Bristol County may maintain her truants in a school of her own.

Bristol County furnishes over three fourths of all the scholars, and pays two fifths of the expense, leaving the burden of support on Norfolk and Plymouth counties. If a division cannot be effected, then there is need of more accommodation, which necessitates either a cottage or an addition to the present building, — the latter in my mind not being practical. It would be better for the State to control the school, than have it in its present condition. The school needs a well equipped room for manual training and sloyd work, with a competent teacher.

Recent legislation has worked some improvement in the enforcement of attendance laws, but only in certain localities. If we could have accommodated more boys, we should have had more, especially from the cities. We were so crowded that the courts were made cognizant of the fact, and commitments dropped off only for extreme cases.

We follow as closely as possible the lives of the boys after they leave the school. There are some of our boys doing well and making a good name for themselves, while others are being passed along to the Lyman School, and still others to the Concord Reformatory. One of our boys is on the "Enterprise," and stands well toward the head of his class. Two others are in service as soldiers in the Philippines. Letters from them recently show that one is doing corporal duty and the other is an acting sergeant.

The boys who make the best showing are those who serve a two-years sentence. The sentence should be more uniform, for the best results. The young boys from eight to eleven years need more discipline than they get in one year, and yet some of them come for only six months.

#### AGENT'S REPORT.

Mr. Prince, agent of the Board of Education, reports as follows : —

*Land and Buildings.* — The land belonging to this school, both in quantity and situation, very well meets the present needs. The buildings, so far as extent of schoolrooms and dormitories is concerned, can be said to be only fairly satisfactory. There should be provided another schoolroom or

recitation room in place of the entry now used for classes, and, for proper protection from possible wrong-doing, there should be better accommodations for sleeping rooms. The room used for play in cold and stormy weather is not well suited to the purpose. But the greatest lack of accommodations is that of a room for manual training. No institution of this kind can adequately accomplish the end desired to be gained without a large amount of manual training. To have no provision for any training of this kind, beyond what can be had in carrying on the work of the house and farm, is, I believe, a sad neglect.

So far as I could see, the living and sleeping rooms of the boys were kept clean and healthful. Much of the work about the house was performed by the boys, under the supervision of the officers.

*Discipline and Teaching.* — Neither undue laxity nor severity seems apparent in the treatment of the boys. Corporal punishment, I understand, is seldom resorted to, and, judging from what I saw on the day of my visit, a good relation exists between the officers of the institution and the boys. The teaching that I saw was quite good, fairly representing what is done in the average school. I should judge that opportunities are afforded for the boys to keep along in their classes as they would if they were at home, and that no loss of time need be sustained by their absence.

At some time I trust that the importance of physical training for the boys of this class of schools will be so far recognized as to provide for gymnastics, directed plays and games, physical measurements and individual treatment.

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## WORCESTER COUNTY TRUANT SCHOOL.

### SUPERINTENDENT'S REPORT.

*Boys committed.* — From Jan. 1, 1900, to Jan. 1, 1901, we had 35 boys committed to our care for truancy. So far as we know, none have been sent to us for other cause. Their ages range from eight to fourteen. One was eight, two were fourteen, but the predominating ages were eleven and twelve. Most of the boys are bright, active, intelligent and enthusiastic



in their school work. They generally come without proper clothing, poor in health, from poor sanitary conditions at home, and unfitted in nearly every way to do good school work. When they have been introduced to the bath, scrub-brush and clean clothing, and transferred from an immoral to a moral atmosphere, they show a decided change within a very short time. Hardly does the title "new boy" pass away before one is in line, doing his part.

*Short Terms Objectionable.* — There have been discharged 34 boys during the year. We have had only 1 sent to us for forty days, and he was subsequently returned. It is useless to send a boy for a short term to the truant school. In the first place, he does not take readily to school work, and it is really forty days' vacation to him. We rarely ever have a two-years boy returned to us. With the exception of the short-term boy just mentioned and a boy who was sent to the reform school, the 34 boys have done well. They have either attended school or gone to work, and at this time are self-supporting. We have never allowed a boy to go on probation but once, and this was in the case of a short-term boy, who went home one month before his time was out. It is our plan, when we once have a boy here, to keep him as long as possible under the influence of the school; and, if he has no home or friends to care for him, we always secure a home for him, and look after his interests. We have four boys who have remained over time. Having nowhere else to go, they remained of their own free will at the school, earning enough, by labor upon the farm, to pay for their board, clothing and schooling. We have endeavored in the past to remove the institutional feeling, and make the school a home for the boys, where they can have the necessary help, attention and education and become good citizens of the Commonwealth.

*Special Features of the Work.* — Special features of the work in the school have been the apprentice system and the manual training department.

The State Normal School at Worcester sends us apprentices daily to assist us in instructing the boys, while gaining for themselves an experience that will help them as future teachers of the Commonwealth. We cannot speak too highly of the

work done by these apprentice teachers. It seems as if every one of them brought new enthusiasm to the boys. Each teacher stays three weeks.

*Manual Training.* — One hour a day, from 3 to 4 P.M., is devoted to a class in manual training, taught by C. L. Judkins, principal of the West Boylston High School. He has created considerable interest among the boys, teaching them the use and care of tools. During the summer we were fortunate enough to secure a gasoline engine, which we are planning to put into a small room in the building and use as power for sawing, a turning lathe and an electric motor. We intend by this to give the boys some idea of sawing and turning, as well as some simple lessons in electricity. In connection with this we have procured a blacksmith's forge and anvil, and placed them in the building to repair tools in use upon the farm. We teach the boys to mend their own shoes, harness and rubber boots.

We have found in every boy a desire to do something with tools. From the needle in the sewing room to the repair shop, every day some lesson is taught the boys. All the bread is made and baked by them, and the fundamental principles in the science of cooking are also taught them. Care of clothing, sewing on buttons, darning holes, patching rents and tears are daily lessons insisted upon.

During the summer, July and August, the boys were free from school duties, and, under the general supervision of the school officers, formed a socialistic organization, based upon labor. Each boy, unless ill (by the way, we have had no illness that required the attendance of a physician), was expected to labor forty hours, from 6 o'clock P.M. on Saturday to 5.30 P.M. the following Saturday. At night he received a check which showed the number of hours of labor performed. If the boy failed to have forty hours to his credit the following Saturday night, he was sent to the school pauper house, and kept there until he had labored enough to free himself from debt. During the summer we have had but one case of pauperism. Many a time has a boy given up the pleasure of a ball game, of his own free will, to enter the onion patch.

Excursions, camping out and lessons in swimming, buying and selling of farm produce keep the boys busy, and they go to bed healthy and tired.

#### AGENT'S REPORT.

Mr. Fletcher, agent of the State Board of Education, reports as follows : —

*Condition of the School.* — I visited the Worcester County Truant School at Oakdale Jan. 28, 1901. The grounds and buildings are well adapted to the needs of the school, except that there is inadequate provision for the manual training work. A building for this purpose will doubtless be provided in the near future.

It being Monday, a part of the ordinary schoolroom work was omitted, as the Worcester Normal School pupils do not come to teach on that day. Of the value of their teaching I had no opportunity to judge. The regular teacher, a young man, conducted recitations in reading and arithmetic. The instruction was of fair quality, and the responses to my questions indicated that the pupils had gained useful knowledge.

Study, recitation, work and play are wisely combined. The boys get much practical knowledge from their manual labor. It also stimulates them mentally for study in the schoolroom. They have regular duties at stated times in the dormitories, kitchen, laundry, dining hall, barn and on the farm. A large proportion of this work is done under direction of the men and women employed. The boys learn also to mend their clothes. In all employment neatness and exactness are required, to the end that good work may be done and correct habits be formed.

Much attention is given to health conditions. Dormitories are cool and airy, beds are clean and comfortable, food wholesome and sufficient. Boys are seldom sick.

There are no indications of confinement to buildings or grounds. Boys can easily run away, but they seldom do so. They are sent "down town" on errands, being placed upon their honor as to behavior and return. The discipline is firm, but not severe. Mr. Johnson, the superintendent, puts enthusiasm and love into his work, and the boys catch the

spirit. The coming of two young ladies to conduct singing and calisthenics was a pleasing feature of the afternoon exercises.

Thirty-three boys were in the school. Several times as many should be there. Superintendent Johnson has been very successful in placing boys in good positions upon leaving the school. He tries to keep in touch with them. For ten boys he has secured positions in the United States Navy.

*Results from sending Boys to Truant Schools.* — The younger boys, so far as facts can be gathered, are found to be more inclined to school life after returning to their homes, provided they have been in the truant school a sufficient length of time to feel its educational influences. Short periods of commitment are not favorable to reform. An indeterminate sentence, depending in length upon the judgment of the superintendent, would be better.

It appears, from information received by superintendents, that a large percentage of the boys who reach the compulsory school age limit while in the truant school go out into their life-work with industrious habits and good principles, making good citizens.

To what extent these institutions reduce truancy is an open question. It seems that boys are generally sent to these schools without a record of their attendance or their grade in any public school, and that upon their leaving the truant school the superintendent finds it difficult to follow them. But a small portion of the truants of any of the towns and cities are sent to the truant schools. The majority of the towns are not represented in truant schools at all. Nearly all of the boys come from a few large cities. But, as regards the beneficial influence of these institutions upon the health, habits, morals and attainments of the boys committed to them for a reasonable length of time, there is, with rare exceptions, no question.

Would that all boys for whose tendencies and surroundings the public school is a misfit could be educated in schools combining intellectual advantages with industrial training, under the wise management of men and women who study the needs of individual pupils, and, in sympathy and kindness, help them to prepare for good citizenship.

## SUFFOLK COUNTY TRUANT SCHOOL.

## SUPERINTENDENT'S REPORT.

*The Boston Parental School.*—The Parental School of Boston is by law the truant school for Suffolk County, although Chelsea, Revere and Winthrop, which with Boston constitute Suffolk County, are regarded by law as belonging for truancy purposes to Middlesex County.

*Statistics of Attendance, Age and Cost.*—The following statistics cover the year ending Feb. 1, 1901:—

Number of boys in school Feb. 1, 1900,	. . . . .	200
Admitted during year,	. . . . .	171
Discharged during year,	. . . . .	143
Released on probation,	. . . . .	31
Number of boys in school Feb. 1, 1901,	. . . . .	196
Average attendance during year,	. . . . .	204.9
Weekly per capita expense of maintenance,	. . . . .	\$4 06
Average age at commitment,	. . . . .	11 years, 4 months, 9 days.
Average time spent in the school by boys discharged during year,	. . . . .	1 year, 3 months, 14 days.
Largest number of commitments in any one month (May),	. . . . .	54

*Nativity.*—The nativity of parents of boys committed during the year was as follows:—

Both parents born in United States,	. . . . .	21
Both parents born in Ireland,	. . . . .	27
Both parents born in Russia,	. . . . .	18
Both parents born in Italy,	. . . . .	11
Both parents born in Canada,	. . . . .	5
Both parents born in some other foreign country,	. . . . .	8
One parent native born,	. . . . .	21
Both parents foreign born, but of different nationalities,	. . . . .	7
One parent native born, other unknown,	. . . . .	13
One parent foreign born, other unknown,	. . . . .	13
Nativity of parents unknown,	. . . . .	27
Total,	. . . . .	171

*Parental Relations.* — The parental relations of boys committed during the year were as follows : —

Both parents living, . . . . .	109
Father only living, . . . . .	17
Had stepmother, . . . . .	9
Mother only living, . . . . .	39
Had stepfather, . . . . .	13
Both parents dead, . . . . .	6

*Class Work.* — The rule which in this school limits the number of boys in each class to 25 is proving its practicability and usefulness. It admits of better classification, and increases the teacher's opportunity of giving personal attention to boys that need it. In the main, the course of study of the Boston public schools is followed. This year we have diminished the time given to arithmetic, especially in the lower grades, and applied the time gained to reading and history. So far, only good has resulted from the change. Early in the year a second sloyd room was equipped and a teacher engaged. After only a few weeks' service the teacher was obliged to leave us. So far it has proved impossible to secure a sloyd teacher who fully meets the requirements under the statute. Upon the installation of a second sloyd teacher, which we hope to accomplish soon, every one of our boys will have two hours, and every boy beyond the fifth grade four hours, of manual training weekly. The fact that about one fourth of the boys who leave the school have passed the school age deepens my conviction that in a properly equipped truant school there should be some provision for teaching a limited number of trades.

*Manual Labor.* — The kitchens, dormitories, laundry, boiler rooms and barn furnish regular work for more than half the boys. The principle adhered to in assigning boys to the various positions is that a given boy shall not continue at a given employment long beyond the time when he has attained proficiency in that kind of work. He is getting most from his work while he is learning how to do it well. During the year the boys have dug a ditch, uncovering twenty rods of sewer pipe, for a part of the way through twelve feet of earth; they have dug

about twenty rods of ditch for new sewers connecting the hospital and the superintendent's house with the main sewer ; they have moved several thousand cubic yards of filling in grading the premises ; and they have dug an ice pond, besides cultivating a small piece of leased land and attending to their gardens. In all this work the boys have taken the keenest delight. I am prepared to say that our boys like to do that which is usually termed work as much as they like to play, provided they are introduced to that work in the right way, and provided, further, that they are not kept at the same employment under the same conditions for too long a time.

*Needs.* — The needs of the school are still great, being practically the same as they were last year. Without the slightest inclination to attribute the shortcomings of the school to lack of equipment, I feel bound to say that such results as the city of Boston should reasonably demand of its Parental School are practically impossible of achievement with the present equipment. Dormitories, a manual training building, gymnasium and assembly hall are absolutely necessary if the best work is to be done.

*Legislation.* — The recent legislation which gives the courts authority to fine parents under certain conditions for absenteeism of children, and the more recent provision under which the judge is authorized to assess parents for maintenance of children committed to truant schools, strike at the very root of the matter, and would, if enforced, solve no inconsiderable part of the problem of compulsory school attendance. The truant is a product. He is a symptom, not the disease. If experience in a truant school teaches one thing more than another, it is this, — that the truant in a great majority of cases is the logical result of bad home conditions. Often his arrest for truancy is the result of criminal neglect on the part of his parents. In some instances I am morally certain that he is sent to the Parental School by the connivance of his parents. Plainly, the boy should be trained in a truant school if necessary, but the parent should be made to feel just as much of the burden of his parental responsibility as he is able to bear. If the parent is compelled to rise to the level of his duty while the child is being led to

an appreciation of his, truancy will decrease ; otherwise, truancy will probably increase.

#### AGENT'S REPORT.

Mr. Prince, agent of the State Board of Education, reports as follows : —

*Land and Buildings.* — The land and buildings of the Boston Parental School are, I believe, quite inadequate to the proper accommodation of the 240 boys in attendance. The most apparent needs of the school are : —

1. Proper exercise and play rooms. There is at present no gymnasium, and the basement play rooms are not one quarter large enough for the number of children who have to be in them in cold or stormy weather. In fact, I do not see how indoor play is possible under present crowded conditions.

2. Land in sufficient quantity to enable all the boys to have plenty of work to do in the summer.

3. Well-ventilated, permanent school buildings. The present temporary buildings should be replaced by permanent ones, as well equipped and ventilated as other school buildings in the city are. At the time of my visit no means of ventilation were provided, and the heating was by direct steam radiation.

4. Bathing accommodations sufficient for needed privacy. Twenty or thirty boys should not be obliged to take the shower bath together.

5. Dormitories of sufficient size for each boy to have a room by himself. One building is now provided with such accommodations. It is hoped that the same accommodations will be extended to all.

*Course of Studies.* — While the course of studies must in a measure follow the city course, it should not be so closely followed as to prevent needed manual exercises or special treatment of boys. It is most unfortunate that circumstances since last September have forced the abandonment of manual training work of any kind for the three higher classes of boys, — those who need such work the most. There should be at least six hours a week of manual training for the older boys and four hours a week of such training for all.



*Teaching and Discipline.* — So far as I could see, there was a pleasant relation existing between the teachers and boys. Some of the teachers certainly have that sympathy and personality which are needed for the particular work in which they are engaged. Most of the teaching which I saw was good. The limited number to each teacher — 25 at present — enables much individual work to be done. The number to each teacher could doubtless be still further decreased to advantage; certainly it should not be greater.

The discipline does not seem severe. Corporal punishment is allowed, but is not often inflicted, there having been only seven cases during the three weeks preceding my visit.

It would be in line with the best practice of this class of schools to appoint a director of hygiene or physical director for the school, whose duty would be to provide proper gymnastic exercises and games for the boys, make measurements and examinations of the boys, and see that each boy has needed physical treatment. It would be well also for some provision to be made whereby boys who leave the school are followed up. I understand that reports are received from those boys who return to the public schools. But this is not enough. It is to be hoped that the steps already taken to reach all who leave the school will be fully carried out.

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#### GENERAL COMMENTS ON TRUANCY SCHOOLS AND TRUANCY CONDITIONS.

From the foregoing reports it appears: —

1. That the truant schools cannot be expected to do effective work with children committed to their care, unless the commitments are for reasonably long terms, — terms long enough to enable the schools to fix the habits of the children.
2. That the presence in truant schools of older and more hardened persons, such as have emerged from the compulsory school limits, has a retarding and demoralizing influence on the younger boys.
3. That manual training in reasonable seriousness and variety is an imperative need of such boys as find their way to the truant

schools. Indeed, the chief differences that now exist in the efficiency of the several truant schools are largely due to their varying degrees of success or failure in providing for such training.

4. That large numbers of towns are not represented in the truant schools at all, — a fact creditable to the towns, if they have no truancy, but otherwise probably discreditable to them, especially if they exhaust local measures in efforts to correct the evil, and yet have incorrigible cases on their hands. To give over such cases as hopeless without sending them to the truant schools is penny-wise, since in each case there is an immediate saving to a town of one dollar per week; but in the long run pound-foolish, since an unreclaimed truant, drifting into pauperism or crime, threatens to become a burden impossible to express in the paltry terms of dollars per week. The saving in a particular case may, indeed, come to one town and the burden fall on another; but it ought not to be necessary to point out that, when towns in general practise this type of economy, such saving is more than neutralized in a score of ways none the less real and burdensome because they do not lend themselves to direct presentation in fiscal reports.

5. That the beneficent influence of our best equipped truant schools on the boys committed to them may properly lead some of our public schools to inquire whether it is not possible for them, through a stronger recognition of the manual training idea in their instruction, to save cases that now incline to truancy.

The present report on truant schools is the third since the passage of the law requiring that such schools shall be subject to visitation by the State Board of Education. Each one of the agents of the Board, Messrs. Prince, Fletcher and MacDonald, has now visited all the truant schools, seven in number, and reported to the Board the condition of each. To gain a fairly complete view of the truancy situation, not only should the three annual reports upon the county truant schools, in the sixty-second, the sixty-third and the sixty-fourth reports of the Board be studied, but also the somewhat exhaustive investiga-

tion into school attendance and truancy conditions made by the Board in 1896, and printed in the fifty-ninth report. In each of these reports there is important information that it is not expedient to report from year to year. Two important recommendations in previous reports relate (1) to the appointment of a State attendance officer or officers, to promote the enforcement of the compulsory attendance laws; and (2) to the establishment of a school for girl truants.



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# AN ABSTRACT

OF THE

SCHOOL RETURNS MADE BY THE SCHOOL COMMITTEES  
OF THE SEVERAL TOWNS AND CITIES IN THE  
COMMONWEALTH

FOR

THE SCHOOL YEAR, 1899-1900.

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## BOARD OF EDUCATION.

## BARNSTABLE COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1899.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.							
	No. of persons in town between 5 and 15 years of age.	No. of persons in town and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	
Barnstable,	612	430	759	6	123	423	688	642	.93	
Bourne, .	315	226	376	1	60	226	304	275	.91	
Brewster,	127	98	143	1	30	108	126	116	.93	
Chatham,	241	169	280	1	39	169	261	235	.90	
Dennis, .	369	260	521	1	72	282	423	400	.95	
Eastham,	75	48	84	1	4	55	64	58	.91	
Falmouth,	447	309	509	1	71	266	399	356	.89	
Harwich,	353	243	397	1	45	250	339	307	.91	
Mashpee,	71	40	80	1	7	39	56	49	.89	
Orleans,	177	133	229	1	40	105	188	170	.90	
Provincetown,	749	489	818	1	90	516	746	699	.94	
Sandwich,	210	149	243	1	39	177	214	198	.92	
Truro,	135	102	154	2	11	102	132	125	.95	
Wellfleet,	137	95	165	1	25	98	135	125	.93	
Yarmouth,	177	119	248	1	39	128	199	188	.95	
Totals, .	4,195	2,910	5,006	11	695	2,944	4,274	3,943	.92	

## BERKSHIRE COUNTY.

TOWNS AND CITIES.	No. of persons in town between 5 and 15 years of age.	No. of persons in town between 16 and 19 years of age.	No. of different pupils within the public schools during the school year.	No. of different pupils within the school year.	No. of different pupils within the school year.	No. of different pupils within the school year.	No. of different pupils within the school year.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.		
Adams, . . . . .	7,837	\$4,636,277	43	2,179	1,447	2,243	9	122	1,602	1,855	1,757	.95
Alford, . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	.73
Becket, . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	.89

## SCHOOL RETURNS.

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Cheshire, . . . . .	1,176	675,351	8	193	124	216	3	21	128	182	167	.92
Clarksburg, . . . . .	1,009	237,638	5	259	213	268	13	12	195	166	160	.96
Dalton, . . . . .	3,210	2,580,457	19	523	353	634	13	56	440	543	510	.94
Egremont, . . . . .	836	433,454	4	109	79	113	3	6	75	88	77	.88
Florida, . . . . .	425	154,548	6	93	64	105	2	5	71	86	83	.96
Great Barrington, . . . . .	4,794	3,522,679	30	819	557	1,079	7	201	691	891	777	.87
Hancock, . . . . .	511	297,771	5	79	54	89	11	11	71	68	60	.88
Hinsdale, . . . . .	1,650	555,428	11	246	181	286	12	25	185	253	219	.87
Lanesborough, . . . . .	848	457,568	6	151	104	160	-	1	109	115	108	.93
Lee, . . . . .	4,066	1,735,483	12	656	483	592	2	82	358	514	475	.92
Lenox, . . . . .	2,872	3,765,899	18	556	394	711	15	34	461	566	490	.87
Monterey, . . . . .	464	225,935	5	96	66	89	-	9	66	72	65	.90
Mount Washington, . . . . .	136	90,843	2	30	23	30	1	-	23	24	20	.80
New Ashford, . . . . .	116	57,165	1	21	16	25	-	2	17	16	13	.81
New Marlborough, . . . . .	1,288	503,536	10	205	151	253	3	15	165	178	150	.84
North Adams, . . . . .	19,135	12,568,000	78	4,315	3,127	3,794	103	256	2,158	2,932	2,726	.93
Oris, . . . . .	518	206,580	6	60	42	66	3	3	41	60	51	.85
Pittsfield, . . . . .	305	118,924	3	52	35	44	2	1	35	37	30	.81
Peru, . . . . .	20,461	14,947,670	103	4,119	2,916	4,500	17	329	3,122	3,864	3,600	.93
Richmond, . . . . .	701	325,339	7	148	123	143	-	6	117	123	110	.89
Sandisfield, . . . . .	802	329,614	8	104	85	114	3	9	81	101	89	.88
Savoy, . . . . .	504	157,765	7	91	74	104	3	6	67	87	82	.94
Sheffield, . . . . .	1,897	856,432	11	306	216	374	7	38	255	271	241	.89
Stockbridge, . . . . .	2,077	3,225,612	11	394	308	453	7	55	308	382	351	.92
Tyringham, . . . . .	363	216,719	3	64	55	64	-	5	55	50	43	.85
Washington, . . . . .	423	250,595	7	77	51	82	2	2	53	57	47	.83
West Stockbridge, . . . . .	1,257	437,409	8	202	159	249	7	36	154	225	198	.88
Williamstown, . . . . .	4,887	2,913,776	27	905	641	1,013	4	93	575	804	748	.93
Wind-or, . . . . .	556	192,238	7	88	67	96	3	9	58	82	75	.91
Totals, . . . . .	86,292	\$57,271,448	479	17,363	12,405	18,214	229	1,464	11,916	14,865	13,671	.92

## BOARD OF EDUCATION.

## BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.								LENGTH OF SCHOOLING.		HIGH SCHOOLS.			
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Barnstable, . . .	27	9	27	18	23	\$71 63	\$40 97	210-3	8-7	2	4	121	{ 9-12 9-12 9-10	\$1,000 00
Bourne, . . .	12	5	14	7	10	70 80	42 75	94-10	8-12	1	2	51	9-10	685 00
Brewster, . . .	6	1	6	2	3	80 00	40 00	43	8-10	1	2	31	9	855 00
Chatham, . . .	12	1	13	2	4	88 88	27 36	101-15	8-9	1	4	40	8-5	1,080 00
Dennis, . . .	14	6	10	4	6	68 00	34 44	105-8	8-2	2	2	67	{ 9 9	800 00
Eastham, . . .	3	-	4	2	3	-	40 00	27	9	-	1	3	10	855 00
Falmouth, . . .	18	2	16	10	9	110 00	48 31	148-15	9-10	1	3	76	10	720 00
Harwich, . . .	13	3	20	10	12	63 33	38 15	101-15	8-9	1	2	57	9-16	1,400 00
Mashpee, . . .	3	2	3	-	3	42 50	24	24	8	-	1	2	10	750 00
Orleans, . . .	6	2	6	3	3	70 00	38 75	37	9-5	1	-	60	10	976 25
Provincetown, . . .	24	2	23	3	5	96 10	32 67	181-2	9-1	1	3	66	8-15	1,026 00
Sandwich, . . .	10	3	10	6	6	67 28	35 11	88-5	8-16	1	1	32	9-10	800 00
Tiruro, . . .	6	8	8	1	3	37 88	37 88	54	9	-	-	22	-	800 00
Wellfleet, . . .	7	1	6	1	1	89 48	36 80	55-7	9-4	1	1	1	9-5	850 00
Yarmouth, . . .	9	4	6	2	3	72 77	41 00	80-11	8-19	1	1	34	8-19	1,000 00
Totals, . . .	170	39	172	62	91	\$74 35	\$38 27	1,352-11	8-15	14	28	657	9-6	\$12,797 25

## BERKSHIRE COUNTY — CONTINUED.

Adams, . . .	50	5	51	21	24	\$110 77	\$43 44	397-10	9-5	1	6	146	9-15	\$1,600 00
Alford, . . .	2	-	3	1	1	-	28 00	17-10	8-15	-	-	-	-	-
Becket, . . .	7	-	8	1	2	-	30 03	68	8-6	-	-	-	-	-



# SCHOOL RETURNS.

v

	8	5	2	1	1	1	2	36	72	9	1	45	1,237	9	540
Cheshire, . . . . .	8	5	2	1	1	1	2	50	42-10	8-10	1	12	1,237	9	540
Clarksburg, . . . . .	5	23	7	7	7	7	40	94	181	8-10	1	45	1,237	9	540
Dalton, . . . . .	24	7	7	7	7	7	120	00	38	9-5	1	4	1,200	10	1,200
Egremont, . . . . .	4	7	1	1	1	1	38	00	28-12	9-10	1	4	1,200	10	1,200
Florida, . . . . .	5	6	1	1	1	1	35	20	41	8-4	1	4	1,600	9-12	1,600
Great Barrington, . . . . .	30	35	4	6	6	6	164	10	280-10	9-7	1	4	1,600	9-12	1,600
Hancock, . . . . .	5	9	1	1	1	1	64	84	41	8-7	1	1	600	9-5	600
Hinsdale, . . . . .	11	12	3	3	3	3	30	00	99	8-5	1	3	1,200	9-15	1,200
Lanesborough, . . . . .	6	7	2	2	2	2	123	08	117	9-15	1	3	1,100	9-18	1,100
Lee, . . . . .	16	16	2	12	13	13	110	00	178-4	9-18	1	3	1,100	9-18	1,100
Lenox, . . . . .	19	24	1	1	1	1	22	00	40	8	1	4	1,000	9-12	1,000
Monterey, . . . . .	5	5	1	1	1	1	40	00	16	8	1	4	1,000	9-12	1,000
Mount Washington, . . . . .	2	1	2	2	2	2	35	20	8	8	1	4	1,000	9-12	1,000
New Ashford, . . . . .	1	3	2	2	2	2	27	00	86-10	8-13	1	8	2,200	9-7	2,200
New Marlborough, . . . . .	10	12	2	2	2	2	109	23	728	9-3	1	8	2,200	9-7	2,200
North Adams, . . . . .	105	97	25	46	46	46	26	00	43-10	7-5	1	8	2,200	9-7	2,200
Otis, . . . . .	6	5	1	1	1	1	26	00	23-5	7-15	1	7	1,800	9-13	1,800
Penn, . . . . .	3	5	1	1	1	1	96	82	43	9-14	1	7	1,800	9-13	1,800
Pittsfield, . . . . .	115	108	22	26	26	26	20	57	54-9	8-11	1	7	1,800	9-13	1,800
Richmond, . . . . .	7	8	1	2	2	2	21	00	64	8	1	4	1,000	9-12	1,000
Sandisfield, . . . . .	8	9	1	2	2	2	32	00	46-15	6-13	1	4	1,000	9-12	1,000
Savoy, . . . . .	9	8	5	7	7	7	56	33	98	9-10	1	3	1,300	9-14	1,300
Sheffield, . . . . .	12	12	3	2	2	2	130	00	94-5	9-6	1	3	1,300	9-14	1,300
Stockbridge, . . . . .	14	15	1	10	10	10	32	33	24-15	8-5	1	4	1,000	9-12	1,000
Tyringham, . . . . .	3	3	1	1	1	1	29	60	53	8-6	1	4	1,000	9-12	1,000
Washington, . . . . .	7	13	1	4	4	4	42	00	76	9-10	1	4	1,000	9-12	1,000
West Stockbridge, . . . . .	8	7	4	9	9	9	72	28	237-2	9-2	1	4	1,000	9-12	1,000
Williamstown, . . . . .	31	28	7	4	4	4	39	52	56	8	1	4	1,000	9-12	1,000
Windsor, . . . . .	7	11	1	1	1	1	30	18	56	8	1	4	1,000	9-12	1,000
Totals, . . . . .	545	564	139	184	184	184	\$62	06	4,340-6	9-1	12	45	1,237	9-11	\$14,728

## BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.						Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.			
Barnstable, . . .	\$12,672 00	\$2,020 02	\$2,240 79	\$260 95	\$1,200 00	\$1,194 17	\$19,890 27	\$501 32	\$19,388 95
Bourne, . . .	5,126 58	874 53	807 35	56 00	675 00	617 09	8,156 55	856 93	7,299 62
Brewster, . . .	2,381 50	112 00	217 78	99 00	312 00	547 04	3,761 57	754 58	3,006 99
Chatham, . . .	3,449 37	335 00	806 45	160 00	-	280 25	5,249 00	394 43	4,854 57
Dennis, . . .	5,280 50	-	682 88	195 00	473 59	396 57	7,022 86	-	7,022 86
Eastham, . . .	1,223 20	-	163 94	-	188 46	103 64	1,723 37	823 37	900 00
Falmouth, . . .	9,138 45	1,968 49	2,686 23	165 23	1,400 00	944 43	16,407 83	546 30	15,861 33
Harwich, . . .	4,756 25	-	900 34	154 50	750 00	609 35	7,128 07	1,215 43	5,912 64
Mashpee, . . .	1,026 50	-	117 25	30 00	150 00	112 91	1,473 66	644 52	829 14
Orleans, . . .	2,880 00	909 70	511 62	20 00	250 08	258 71	4,935 71	977 67	3,958 04
Provincetown, . . .	8,609 67	-	1,692 15	94 30	1,200 00	884 44	13,149 78	1,294 43	11,855 35
Sandwich, . . .	4,049 87	303 80	575 27	47 72	675 00	364 97	6,116 56	956 93	5,159 63
Truro, . . .	2,161 30	-	215 45	104 00	-	137 29	2,662 92	524 38	2,138 54
Wellfleet, . . .	2,560 42	110 50	280 85	95 00	300 00	175 91	3,604 69	703 24	2,895 45
Yarmouth, . . .	4,965 00	632 52	605 00	118 00	277 41	225 20	6,867 13	2,379 13	4,488 00
Totals, . . .	\$70,232 61	\$7,266 56	\$12,503 35	\$1,599 70	\$7,850 54	\$6,751 97	\$108,149 97	\$12,578 86	\$95,571 11

## BERKSHIRE COUNTY — CONTINUED.

Adams, . . .	\$33,675 03	\$65 80	\$4,574 82	\$325 00	\$1,900 00	\$2,089 70	\$34,167 10	-	\$34,167 10
Alford, . . .	705 95	12 50	29 50	28 75	-	23 53	825 83	\$586 00	239 83
Becket, . . .	2,069 25	153 95	54 31	22 75	400 83	123 20	2,829 29	872 91	1,956 38

# SCHOOL RETURNS.

Cheshire, . . .	2,366 00	265 50	470 82	-	460 00	275 16	152 02	3,379 50	769 38	3,210 12
Clarksburg, . .	1,664 00	39 00	152 10	25 00	-	208 57	181 05	2,269 72	926 69	1,343 13
Dalton, . . .	9,705 00	-	2,734 19	45 00	1,050 00	1,186 98	-	14,721 17	1,119 38	13,601 79
Egremont, . . .	2,218 15	-	157 01	50 50	112 50	102 03	34 02	2,674 21	1,488 34	1,185 87
Florida, . . .	1,478 00	-	55 00	35 00	253 93	80 39	11 68	1,914 00	1,012 78	901 22
Great Barrington, .	10,306 35	596 90	2,409 39	225 00	990 00	1,212 94	1,111 75	16,852 33	57 64	16,794 69
Hancock, . . .	1,196 40	-	68 75	63 13	-	171 66	8 00	1,507 94	531 56	976 38
Hinsdale, . . .	3,549 80	36 00	452 23	6 00	-	323 20	13 00	4,379 23	510 68	3,868 55
Lanesborough, . .	1,656 00	169 00	281 62	96 25	-	180 82	57 02	2,440 71	584 43	1,856 28
Lee, . . .	6,866 00	720 48	1,809 72	358 00	-	868 37	348 43	10,971 00	412 71	10,558 29
Lenox, . . .	9,000 50	50 00	1,841 47	150 00	720 00	999 99	250 00	13,011 96	-	13,011 96
Monterey, . . .	1,329 50	274 95	120 87	60 45	-	66 35	41 53	1,893 65	936 02	957 63
Mr. Washington, .	616 00	-	22 50	19 75	-	42 17	9 25	709 67	330 00	379 67
New Ashford, . .	284 00	75 00	32 00	49 50	-	10 00	9 58	460 08	350 00	110 08
New Marlborough, .	2,333 00	305 75	177 43	122 25	300 00	203 60	40 50	3,542 53	1,007 20	2,535 33
North Adams, . .	51,250 00	380 00	8,500 00	1,718 00	2,750 00	4,000 00	1,000 00	69,598 00	-	69,598 00
Otis, . . .	1,170 00	-	16 50	65 00	-	31 05	1 68	1,284 23	717 38	566 85
Peru, . . .	651 00	168 75	43 14	24 00	-	81 00	4 00	971 89	675 14	296 75
Pittsfield, . . .	54,168 17	200 00	11,529 18	1,163 18	2,300 00	5,337 54	1,548 74	76,246 81	-	76,246 81
Richmond, . . .	1,856 60	-	225 26	57 84	262 50	198 00	43 88	2,644 08	1,159 78	1,484 30
Sandisfield, . . .	1,362 00	59 50	96 14	93 50	-	83 72	19 17	1,714 03	799 24	914 79
Savoy, . . .	1,350 00	166 75	42 00	47 50	-	57 93	5 00	1,669 18	969 34	699 84
Sheffield, . . .	3,845 25	279 40	405 60	62 25	430 00	288 88	72 98	5,404 36	838 50	4,565 86
Stockbridge, . . .	7,102 53	523 50	1,185 62	250 00	500 00	726 31	136 32	10,424 28	258 94	10,165 34
Tyringham, . . .	812 00	206 00	68 63	31 00	-	54 71	-	1,172 34	529 52	642 82
Washington, . . .	1,642 60	60 00	103 28	34 74	170 58	125 94	16 00	2,153 14	1,041 04	1,112 10
West Stockbridge, .	2,983 75	142 00	386 23	65 00	375 00	264 88	47 78	4,219 64	979 44	3,240 20
Williamstown, . .	11,231 59	247 00	2,970 07	50 00	1,200 00	1,463 08	353 60	17,515 34	-	17,515 34
Windsor, . . .	1,690 00	-	61 37	37 50	-	94 93	25 09	1,908 89	967 09	941 80
Totals, . . .	\$222,149 42	\$5,197 73	\$41,076 75	\$5,380 84	\$14,185 34	\$20,976 63	\$7,109 42	\$316,076 13	\$20,431 03	\$295,645 10

## BARNSTABLE COUNTY — CONCLUDED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxa- tion.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	ACADEMIES AND PRIVATE SCHOOLS.			
	New schoolhouses.	Alterations and per- manent repairs.	Ordinary repairs.				No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different pri- vate school pupils attending during the year.
Barnstable, . . .	-	-	\$837 25	\$837 25	\$837 25	\$20,226 20	-	-	-	-
Bourne, . . .	-	-	543 80	543 80	543 80	7,843 42	-	-	-	-
Brewster, . . .	-	-	106 57	106 57	106 57	3,113 56	-	-	-	-
Chatham, . . .	-	-	200 00	200 00	200 00	5,034 57	-	-	-	-
Dennis, . . .	-	-	882 90	882 90	882 90	7,905 76	-	-	-	-
Eastham, . . .	-	-	168 55	168 55	168 55	1,068 55	-	-	-	-
Falmouth, . . .	-	\$1,692 67	828 23	2,520 90	2,520 90	18,382 23	-	-	-	-
Harwich, . . .	-	-	536 55	536 55	536 55	6,449 19	-	-	-	-
Mashpee, . . .	-	-	35 80	35 80	35 80	864 94	-	-	-	-
Orleans, . . .	-	-	226 86	226 86	226 86	4,184 90	-	-	-	-
Provincetown, . . .	\$2,360 00	205 03	945 24	3,510 27	3,510 27	15,365 62	-	-	-	-
Sandwich, . . .	-	-	160 51	160 51	160 51	5,340 14	-	-	-	-
Truro, . . .	-	-	138 09	138 09	138 09	2,276 63	-	-	-	-
Wellfleet, . . .	-	-	151 52	151 52	151 52	3,046 97	-	-	-	-
Yarmouth, . . .	-	5,085 00	200 00	5,285 00	\$5,000 00	4,773 00	-	-	-	-
Totals, . . .	\$2,360 00	\$6,982 70	\$5,961 87	\$15,304 57	\$10,304 57	\$105,875 68	-	-	-	-

## BERKSHIRE COUNTY — CONCLUDED.

Adams, . . .	\$1,474 32	\$1,800 00	-	\$3,274 32	\$37,441 42	1	400
Alford, . . .	32 00	11 75	-	43 75	283 58	-	-
Becket, . . .	13 83	-	-	13 83	1,970 21	-	-

# SCHOOL RETURNS.

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Cheshire, . . . . .	-	231 25	231 25	-	231 25	3,441 37	-	-	-	-
Clarksburg, . . . . .	-	88 58	88 58	-	88 58	1,431 71	-	-	-	-
Dalton, . . . . .	-	1,020 52	1,020 52	-	1,020 52	14,622 31	-	-	-	-
Egremont, . . . . .	6 67	5 50	12 17	-	12 17	1,198 04	-	-	-	-
Florida, . . . . .	-	132 90	132 90	-	132 90	1,034 12	-	-	2	50
Great Barrington, . . . . .	-	739 23	739 23	-	739 23	17,533 92	-	-	-	-
Hancock, . . . . .	-	13 47	13 47	-	13 47	989 85	-	-	-	-
Hinsdale, . . . . .	-	18 66	18 66	-	18 66	3,887 21	-	-	-	-
Lanesborough, . . . . .	-	94 23	94 23	-	94 23	1,950 51	-	-	-	-
Lee, . . . . .	688 76	125 81	814 57	-	814 57	11,372 86	-	-	3	230
Lenox, . . . . .	-	1,001 12	1,001 12	-	1,001 12	14,013 08	-	-	-	-
Monterey, . . . . .	-	6 50	6 50	-	6 50	964 13	-	-	-	-
Mount Washington, . . . . .	-	-	-	-	-	379 67	-	-	-	-
New Ashford, . . . . .	-	-	-	-	-	110 08	-	-	-	-
New Marlborough, . . . . .	\$598 87	99 06	801 03	-	801 03	3,336 36	-	-	-	-
North Adams, . . . . .	55,000 00	1,500 00	59,500 00	-	59,500 00	129,098 00	-	-	2	1,370
Otis, . . . . .	-	10 50	10 50	-	10 50	577 35	-	-	-	-
Peru, . . . . .	-	-	-	-	-	296 75	-	-	5	757
Pittsfield, . . . . .	-	4,030 80	7,243 97	-	7,243 97	83,490 78	-	-	-	-
Richmond, . . . . .	-	76 66	76 66	-	76 66	1,560 96	-	-	-	-
Sandisfield, . . . . .	-	54 71	54 71	\$54 71	-	914 79	-	-	-	-
Savoy, . . . . .	-	15 44	15 44	-	15 44	715 28	-	-	-	-
Sheffield, . . . . .	-	30 75	30 75	-	30 75	4,596 61	-	-	1	13
Stockbridge, . . . . .	4,814 43	557 44	6,366 85	-	6,366 85	16,532 19	-	-	-	-
Tyringham, . . . . .	-	44 05	44 05	-	44 05	686 87	-	-	-	-
Washington, . . . . .	-	35 35	160 35	-	160 35	1,272 45	-	-	-	-
West Stockbridge, . . . . .	-	73 58	159 45	-	159 45	3,399 65	-	-	-	-
Williamstown, . . . . .	-	1,052 31	1,052 31	-	1,052 31	18,567 65	-	-	1	98
Windsor, . . . . .	-	34 24	34 24	-	34 24	976 04	-	-	-	-
Totals, . . . . .	\$60,413 30	\$12,612 81	\$83,055 41	\$54 71	\$83,000 70	\$378,645 80	-	-	15	2,918

## BOARD OF EDUCATION.

## BRISTOL COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1899.		No. of persons in town between 5 and 15 years of age.	No. of persons in town between 7 and 14 years of age.	SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.							
	Population—State Census of 1896.	Valuation—May 1, 1899.			No. of public schools.	No. of different pupils during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Acushnet,	1,115	\$641,890	6	185	141	194	1	10	134	154	135	.87
Attleborough,	8,288	6,390,968	38	1,930	1,411	2,133	12	103	1,443	1,646	1,493	.91
Berkley,	955	388,819	7	168	120	173	2	3	120	141	124	.88
Dartmouth,	3,107	2,714,275	22	537	364	573	12	20	377	473	419	.89
Dighton,	1,797	791,610	11	274	195	284	1	11	199	236	211	.89
Easton,	4,452	4,683,730	23	912	642	1,135	63	109	642	928	880	.95
Fairhaven,	3,338	2,279,040	16	563	402	647	-	47	442	563	507	.90
Fall River,	89,203	71,642,320	270	19,261	13,913	17,095	237	836	11,242	12,649	11,362	.90
Freetown,	1,405	821,322	8	224	161	264	7	12	188	208	183	.87
Mansfield,	3,722	1,928,538	18	667	478	824	-	84	494	673	613	.91
New Bedford,	55,251	56,107,418	195	10,716	7,432	9,100	20	877	5,619	7,399	6,812	.92
North Attleborough,	6,576	3,879,581	32	1,227	888	1,424	8	123	928	1,228	1,112	.91
Norton,	1,614	841,205	10	251	202	299	20	21	180	212	183	.86
Raynham,	1,518	761,366	8	256	182	295	1	10	218	223	197	.88
Rehoboth,	1,810	744,480	13	313	230	339	5	29	243	251	214	.85
Seekonk,	1,465	948,715	9	233	169	273	8	13	182	188	159	.85
Somerset,	1,983	1,022,713	9	388	280	352	2	8	250	331	308	.93
Swansea,	1,627	912,995	11	258	185	288	10	7	188	240	216	.90
Taunton,	27,115	20,518,320	102	5,021	3,542	4,918	-	455	3,301	4,360	4,189	.96
Westport,	2,678	1,555,825	20	539	390	460	5	16	333	394	346	.87
Totals,	219,019	\$179,575,130	828	43,923	31,327	41,070	394	2,794	26,723	32,497	29,663	.91

## SCHOOL RETURNS.

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## DUKES COUNTY.

Chilmark,	.	.	.	304	\$217,075	2	40	26	44	-	4	31	37	35	.95
Cottage City, -	.	.	.	1,038	1,675,300	7	212	149	205	-	6	140	161	146	.90
Edgartown, -	.	.	.	1,125	720,682	6	124	90	144	-	20	95	138	123	.89
Gay Head, -	.	.	.	169	26,217	1	35	29	47	-	12	29	36	31	.86
Gosnold, -	.	.	.	140	224,926	1	21	14	22	1	1	14	20	18	.90
Tisbury, -	.	.	.	1,002	973,289	4	130	82	134	-	35	79	134	127	.96
West Tisbury,	.	.	.	460	390,667	3	43	35	66	-	6	35	47	46	.98
Totals, . . .	.	.	.	4,238	\$4,228,156	24	605	425	662	1	84	423	573	526	.92

BOARD OF EDUCATION.

## BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	A'vge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Acushnet, . . . . .	7	-	9	1	2	\$87 00	\$34 99	54	9	1	4	126	9-3	\$1,600 00
Attleborough, . . . . .	53	5	51	13	24	-	43 90	351	9-16	1	4	-	-	480 00
Berkley, . . . . .	7	-	10	4	4	-	32 85	59-10	8-10	1	1	-	9	480 00
Dartmouth, . . . . .	23	3	25	3	6	53 33	29 65	197-10	8-19	3	3	36	9	480 00
Dighton, . . . . .	12	1	14	4	6	48 00	33 00	96-5	8-15	-	-	-	-	-
Easton, . . . . .	43	3	36	7	9	137 00	44 00	224-10	9-15	1	3	105	10	1,500 00
Fairhaven, . . . . .	17	1	17	5	1	80 00	43 24	153-10	9-12	1	3	42	10	800 00
Fall River, . . . . .	390	27	380	56	72	129 21	51 11	2,666-2	9-6	1	23	665	10	3,000 00
Freetown, . . . . .	8	1	8	1	1	36 00	33 00	70	8-15	-	-	-	-	-
Mansfield, . . . . .	19	2	25	6	12	99 44	40 35	154-15	8-12	1	3	104	9-15	1,100 00
New Bedford, . . . . .	225	11	216	52	59	185 30	57 66	1,753-2	9-5	1	14	493	9-18	2,750 00
North Attleborough, . . . . .	38	4	43	23	29	126 31	47 94	288-1	9	1	4	78	9-10	1,800 00
Norton, . . . . .	11	3	16	6	8	-	38 54	91	9-2	-	-	-	-	-
Raynham, . . . . .	8	3	8	4	6	40 81	37 10	65-17	8-4	-	-	-	-	-
Rehoboth, . . . . .	13	-	18	3	6	-	29 40	104	8	-	-	-	-	-
Seekonk, . . . . .	9	-	13	2	4	-	33 32	81	9	-	-	-	-	-
Somerset, . . . . .	9	-	9	2	3	-	37 56	78-15	8-15	-	-	-	-	-
Swansea, . . . . .	11	3	11	3	9	34 35	32 75	99	9	-	-	-	-	-
Taunton, . . . . .	131	13	118	35	39	123 88	54 66	971	9-10	1	10	400	10	2,000 00
Westport, . . . . .	20	5	26	2	7	46 67	27 63	179-15	8-19	1	1	7	9	480 00
Totals, . . . . .	1,054	82	1,053	232	307	\$115 55	\$48 77	7,738-12	9-5	12	68	2,056	9-10	\$16,470 00



## DUKES COUNTY — CONTINUED.

Chilmark, . . .	2	-	2	2	2	2	16	8	-	-	-	-
Cottage City, . . .	7	1	10	5	6	\$75 00	\$38 00	9	1	16	9	\$675 00
Edgartown, . . .	6	2	6	3	3	60 00	37 50	8-16	1	24	9	540 00
Gay Head, . . .	2	1	1	-	-	40 00	35 80	9	-	-	-	-
Gosnold, . . .	1	-	2	1	1	-	20 00	9	-	-	-	-
Tisbury, . . .	5	1	4	2	2	70 00	40 00	9	1	25	9	630 00
West Tisbury, . . .	4	1	4	1	1	35 00	42 50	8-14	-	-	-	-
Totals, . . .	27	6	29	14	15	\$56 66	\$36 95	8-16	3	65	9	\$1,845 00

## BOARD OF EDUCATION.

## BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Acushnet, . . . . .	\$2,108 38	-	\$238 56	\$75 00	\$300 00	\$108 24	\$23 44	\$2,853 62	\$605 51	\$2,248 11
Attleborough, . . . . .	23,047 75	\$1,298 90	4,636 25	451 48	1,162 50	2,506 56	4,036 02	37,139 46	1,445 75	35,693 71
Berkley, . . . . .	2,388 00	-	171 09	70 50	-	165 59	129 53	2,934 71	993 34	1,941 37
Dartmouth, . . . . .	7,861 65	484 00	1,080 25	250 00	750 00	588 04	317 77	11,331 71	936 31	10,395 40
Dighton, . . . . .	4,109 70	-	470 52	3 75	200 00	286 34	74 00	5,144 31	394 38	4,749 93
Easton, . . . . .	19,072 79	1,074 40	2,332 84	235 00	1,364 95	1,886 39	370 60	26,336 97	6,854 73	19,482 24
Fairhaven, . . . . .	7,408 90	185 00	2,089 89	137 28	900 00	674 81	478 09	11,873 97	1,158 40	10,715 57
Fall River, . . . . .	205,232 75	651 30	47,131 35	5,077 77	3,300 00	16,574 82	4,741 55	282,709 24	2,514 80	280,194 44
Freetown, . . . . .	2,313 50	135 50	303 59	95 00	-	177 90	16 74	3,042 23	355 51	2,686 72
Mansfield, . . . . .	8,416 00	362 12	1,612 43	245 00	660 00	1,174 61	212 39	12,682 55	755 51	11,927 04
New Bedford, . . . . .	140,999 26	222 40	25,423 08	2,961 56	3,500 00	6,890 88	14,185 57	194,182 75	2,156 93	192,025 82
No. Attleborough, . . . . .	16,655 72	-	3,638 23	221 00	1,800 00	1,600 00	1,847 99	25,762 94	-	25,762 94
Norton, . . . . .	4,239 48	22 00	478 28	4 00	600 00	280 65	18 95	5,643 36	935 93	4,707 43
Raynham, . . . . .	3,354 00	360 00	317 69	49 00	300 00	131 63	105 66	4,617 98	853 18	3,764 80
Rehoboth, . . . . .	3,385 40	192 00	201 58	120 00	-	288 80	45 20	4,232 98	394 38	3,838 60
Seekonk, . . . . .	2,698 92	-	342 75	114 00	-	232 62	228 40	3,616 69	737 56	2,879 13
Somerset, . . . . .	4,766 50	611 51	394 41	236 39	-	356 11	41 53	6,406 45	294 38	6,112 07
Swansea, . . . . .	4,003 70	-	381 48	10 84	91 66	210 78	38 00	4,736 46	394 38	4,342 08
Taunton, . . . . .	79,535 39	1,273 00	11,407 94	750 00	2,150 00	4,968 74	4,541 07	104,676 14	2,176 70	102,499 44
Westport, . . . . .	5,885 00	-	527 78	242 75	750 00	500 00	122 95	8,028 48	879 59	7,148 89
Totals, . . . . .	\$547,542 79	\$6,872 13	\$103,179 99	\$11,350 32	\$17,829 11	\$39,603 21	\$31,575 45	\$757,963 00	\$24,837 27	\$733,115 73

## SCHOOL RETURNS.

XV

## DUKES COUNTY — CONTINUED.

Chilmark, . . .	\$739 92	\$176 00	\$57 75	\$42 00	\$155 00	\$103 41	\$23 18	\$1,297 26	\$762 51	\$534 75
Cottage City, . .	2,724 34	170 00	683 78	95 00	387 50	470 10	90 45	4,621 17	412 50	4,208 67
Edgartown, . . .	2,190 00	184 00	250 12	80 00	387 50	302 07	269 19	3,662 88	512 50	3,150 38
Gay Head, . . .	510 00	-	32 00	40 00	-	41 10	40 91	664 01	548 55	115 46
Gosnold, . . .	360 00	-	32 50	41 25	-	29 40	8 00	471 15	300 00	171 15
Tisbury, . . .	2,444 59	116 25	559 83	45 00	309 96	400 95	36 70	3,913 28	637 52	3,275 76
West Tisbury, . .	1,300 50	-	155 25	20 00	309 96	183 81	52 36	2,021 88	961 38	1,060 50
Totals, . . .	\$10,269 35	\$646 25	\$1,771 23	\$363 25	\$1,549 92	\$1,530 84	\$520 79	\$16,651 63	\$4,134 96	\$12,516 67

## BOARD OF EDUCATION.

## BRISTOL COUNTY — CONCLUDED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	ACADEMIES AND PRIVATE SCHOOLS.			
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.				No. of academies.	No. of different academies attending during the year.	No. of private schools.	No. of different private schools attending during the year.
Acushnet.	-	-	\$166 32	\$166 32	\$166 32	\$2,414 43	-	-	-	-
Attleborough.	\$12,000 00	\$1,975 00	324 94	14,299 94	14,299 94	49,993 65	-	-	3	20
Berkley.	-	-	-	-	-	1,941 37	-	-	-	-
Dartmouth.	-	-	578 65	578 65	578 65	10,974 05	-	-	-	-
Dighton.	-	-	153 47	153 47	153 47	4,903 40	-	-	-	-
Easton.	-	727 75	312 57	1,040 32	1,040 32	20,522 56	-	-	-	-
Fairhaven.	-	300 00	737 68	1,037 68	1,037 68	11,753 25	-	-	1	5
Fall River.	14,820 43	-	5,753 91	20,574 34	20,574 34	300,768 78	-	-	11	4,809
Freetown.	-	-	117 24	117 24	117 24	2,803 96	-	-	-	-
Mansfield.	5,471 69	2,658 78	672 11	8,702 58	8,702 58	20,629 62	-	-	-	-
New Bedford.	2,652 42	14,094 34	5,970 29	22,717 05	22,717 05	214,742 87	1	68	12	3,483
North Attleborough.	16,922 53	746 05	599 16	17,267 74	17,267 74	43,030 68	-	-	-	-
Norton.	-	-	266 01	266 01	266 01	4,973 44	1	85	-	-
Raynham.	-	-	86 15	86 15	86 15	3,850 95	-	-	-	-
Rehoboth.	-	-	128 19	128 19	128 19	3,966 79	-	-	-	-
Seekonk.	1,478 95	-	123 83	1,602 78	1,602 78	4,481 91	-	-	-	-
Somerset.	-	500 00	219 87	719 87	719 87	6,831 94	-	-	-	-
Swansea.	-	-	63 04	63 04	63 04	4,405 12	-	-	-	-
Taunton.	45,000 00	1,000 00	5,500 00	51,500 00	51,500 00	153,992 44	1	44	1	587
Westport.	-	32 00	434 19	466 19	466 19	7,615 05	-	-	-	-
Totals.	\$97,346 02	\$22,033 92	\$22,107 62	\$141,487 56	\$141,487 56	\$874,603 29	3	197	28	8,904

## DUKES COUNTY — CONCLUDED.

Chilmark, . . . . .	-	\$67 34	\$67 34	-	\$67 34	\$602 09	-	-	-
Cottage City, . . . . .	-	238 27	238 27	-	238 27	4,446 94	-	-	-
Edgartown, . . . . .	-	197 65	197 65	-	197 65	3,348 03	-	-	-
Gay Head, . . . . .	-	-	-	-	-	115 46	-	-	-
Gosnold, . . . . .	-	50 00	50 00	-	50 00	221 15	-	-	-
Tisbury, . . . . .	-	9 14	140 40	-	140 40	3,416 16	-	-	-
West Tisbury, . . . . .	-	48 80	48 80	-	48 80	1,109 30	-	-	-
Totals, . . . . .	-	\$611 20	\$742 46	-	\$742 46	\$13,259 13	-	-	-

## ESSEX COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1899.		Valuation—May 1, 1899.	No. of public schools.	SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.						
	No. of persons in town between 5 and 15 years of age.	No. of persons in town between 15 and 14 years of age.			No. of different pupils of all ages in the public schools during the year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Amesbury,	1,629	1,099	\$5,152,431	31	1,247	193	805	1,040	953	.91	
Andover,	948	689	5,110,982	32	1,140	30	764	990	906	.92	
Beverly,	2,273	1,571	16,199,850	55	2,475	196	1,571	2,168	2,003	.92	
Boxford,	96	65	688,435	5	104	5	70	77	70	.91	
Danvers,	1,398	982	5,109,540	31	1,588	219	827	1,399	1,252	.90	
Essex,	304	205	971,799	9	344	32	205	303	273	.90	
Georgetown,	299	212	1,012,395	11	400	48	211	342	311	.91	
Gloucester,	4,017	2,777	15,826,307	92	4,690	692	2,628	4,169	4,027	.97	
Groveland,	410	288	978,701	13	463	35	296	412	383	.93	
Hamilton,	260	178	1,943,585	7	253	18	197	203	183	.90	
Haverhill,	5,886	4,005	25,604,234	131	5,417	685	2,995	4,660	4,298	.92	
Ipswich,	686	513	3,091,932	19	743	143	522	672	607	.90	
Lawrence,	10,045	6,345	38,614,722	176	8,781	798	4,953	6,836	6,479	.95	
Lynn,	10,107	7,090	51,076,898	230	10,538	1,096	6,335	9,241	8,582	.93	
Lynnfield,	137	102	675,371	4	145	6	107	98	94	.96	
Manchester,	360	258	8,359,578	10	395	35	268	351	331	.94	
Marblehead,	1,049	724	5,966,441	33	1,322	122	778	1,214	1,121	.92	
Merrimac,	330	281	1,234,291	12	447	73	283	404	379	.94	
Methuen,	1,340	936	4,293,193	31	1,346	94	914	1,114	1,009	.91	
Middleton,	128	84	550,333	3	137	2	88	95	90	.94	
Nahant,	107	69	4,720,361	4	137	21	84	110	99	.90	
Newbury,	202	150	1,074,126	7	269	26	139	212	184	.87	
Newburyport,	2,269	1,744	10,015,417	39	1,811	207	1,420	1,567	1,427	.92	
North Andover,	767	519	3,373,360	20	866	71	558	703	651	.93	
Peabody,	1,870	1,286	8,578,349	41	1,926	150	1,220	1,679	1,532	.91	

## SCHOOL RETURNS.

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Rockport, . . . . .	5,289	2,743,018	18	826	531	803	-	54	531	708	675	.95
Rowley, . . . . .	1,272	667,894	6	190	138	207	-	-	135	170	152	.89
Salem, . . . . .	34,473	28,231,517	110	6,079	4,258	4,891	405	567	2,621	4,334	3,973	.92
Salisbury, . . . . .	1,300	657,970	8	252	180	256	-	18	176	214	187	.87
Saugus, . . . . .	4,497	3,534,172	24	951	684	1,207	3	102	790	1,004	924	.92
Swampscott, . . . . .	3,259	5,399,220	16	653	458	708	5	90	420	629	572	.91
Topsfield, . . . . .	1,033	814,895	5	159	113	161	2	29	70	146	134	.92
Wenham, . . . . .	886	951,600	5	133	104	138	3	5	104	111	106	.95
West Newbury, . . . . .	1,643	868,923	11	226	170	279	4	19	180	215	190	.88
Totals, . . . . .	330,393	\$264,093,840	1,249	56,406	38,808	55,634	856	5,881	33,265	47,586	44,157	.93

## BOARD OF EDUCATION.

## ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.								LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.	
-Amesbury,	36	2	39	18	18	\$110 56	\$42 76	292	9-8	1	6	152	10	\$1,500 00	
-Andover,	31	2	33	13	13	128 00	46 90	269-9	8-7	1	4	99	9-5	1,800 00	
-Beverly,	59	3	61	16	17	108 33	41 61	550	10	1	8	224	10	1,500 00	
-Boxford,	5	-	7	1	2	-	34 80	45	9	1	1	25	9	1,000 00	
-Danvers,	36	3	34	13	14	131 66	47 20	350	10	1	6	205	10	1,700 00	
-Essex,	11	2	10	4	4	90 00	28 00	76-10	8-10	1	2	43	8-10	850 00	
-Georgetown,	12	1	12	5	6	100 00	34 75	100	9-3	1	2	55	10	1,000 00	
-Gloucester,	118	6	114	23	27	144 00	41 50	869-8	9-9	1	13	423	9-12	2,300 00	
-Groveland,	14	1	15	11	11	80 00	36 23	112-3	8-12	1	2	55	9-14	800 00	
-Hamilton,	7	-	7	2	-	-	40 00	66-10	9-10	-	-	-	-	-	
-Haverhill,	151	8	148	18	25	135 00	57 59	1,268-6	9-15	2	16	491	{ 9-15 9-15	2,000 00	
-Ipswich,	24	1	27	10	10	180 00	40 00	178-10	9-8	1	3	62	9-16	1,400 00	
-Lawrence,	212	14	202	38	47	150 91	50 94	1,685-4	10	1	19	755	10	1,800 00	
-Lynn,	263	20	243	51	59	149 11	61 10	2,196-10	9-11	2	31	836	{ 9-13 9-13	2,500 00	
-Lynnfield,	4	-	5	4	4	-	38 00	40	10	-	-	-	-	2,500 00	
-Manchester,	12	4	12	6	7	100 00	45 20	96-14	9-13	1	3	45	10	1,200 00	
-Marblehead,	35	2	33	13	3	90 00	45 58	324	10	1	6	153	10	1,200 00	
-Merrimac,	14	1	16	1	4	120 00	42 31	112-10	9-7	1	3	57	9-15	1,200 00	
-Methuen,	38	2	40	4	4	136 84	43 43	277-19	9-1	1	5	112	9-6	1,300 00	
-Middletown,	3	-	3	1	1	-	38 66	27-16	9-5	-	-	-	-	-	
-Nahant,	5	4	4	4	4	135 13	62 16	37	9-4	-	2	24	9-5	1,250 00	
-Newbury,	7	1	11	3	3	-	34 90	63	9	1	6	29	9-10	403 00	
-Newburyport,	45	3	42	2	5	125 00	45 96	390	10	1	7	197	10	1,600 00	
-North Andover,	24	3	23	7	8	114 77	43 25	190-10	9-10	1	4	86	10	1,137 50	
-Peabody,	51	3	53	22	28	136 66	48 86	401-16	9-16	1	6	149	9-16	1,700 00	



Rockport,	.	21	2	19	10	105 26	39 83	150-10	8-18	1	2	76	9-6	1,000 00
Rowley, .	.	6	2	8	3	-	31 66	53	9	-	-	-	-	-
Salem, .	.	134	88	121	95	147 70	55 45	969-15	9-10	1	17	482	9-12	2,500 00
Salisbury,	.	8	2	7	4	60 00	32 14	70-16	8-17	-	-	-	-	-
Saugus, .	.	28	22	33	26	135 00	43 00	234	9-15	1	4	101	10	1,350 00
Swampscott,	.	20	18	18	7	117 50	55 50	143-5	9-11	1	4	69	9-11	1,700 00
Topsfield,	.	7	3	8	3	76 00	34 00	46	9-4	1	2	35	10	760 00
Wenham,	.	6	5	8	6	-	39 40	45	9	-	-	-	-	-
West Newbury,	.	11	2	14	3	72 56	29 85	86-16	7-18	1	1	22	8-16	800 00
Totals,	.	1,458	429	1,430	481	\$132 57	\$49 63	11,819-17	9-9	30	185	5,062	9-12	\$44,250 50

\* Punchard Free School.

† Barker Free School.

## ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Amesbury, . . . . .	\$15,728 25	-	\$2,685 99	\$480 12	\$1,700 00	\$1,936 51	\$1,272 06	\$22,102 93	\$1,153 49	\$22,102 93
Andover, . . . . .	19,368 06	-	4,032 82	360 00	\$1,800 00	1,771 46	-	27,232 34	119 84	23,078 85
Beverly, . . . . .	32,561 76	\$805 75	6,538 17	608 18	1,800 00	6,073 08	971 11	49,558 05	504 06	49,238 21
Boxford, . . . . .	1,920 00	270 00	152 30	131 65	-	136 53	39 53	2,650 01	-	2,145 95
Danvers, . . . . .	18,830 00	570 00	3,754 21	489 75	-	1,104 12	1,916 65	26,664 73	-	26,664 73
Essex, . . . . .	3,212 50	109 50	593 07	190 00	-	296 17	38 50	4,439 74	255 55	4,184 19
Georgetown, . . . . .	5,196 75	-	427 97	56 55	600 00	589 38	83 02	6,953 67	794 43	6,159 24
Gloucester, . . . . .	53,240 50	1,000 00	10,582 99	810 00	2,300 00	5,291 86	294 50	73,519 85	-	73,519 85
Groveland, . . . . .	5,226 12	-	1,088 19	187 50	600 00	482 83	233 82	7,818 46	894 43	6,924 03
Hamilton, . . . . .	2,863 48	266 21	741 27	187 16	-	438 41	274 82	4,771 35	255 51	4,515 84
Haverhill, . . . . .	93,610 40	1,038 75	13,764 76	1,362 37	2,193 75	8,885 09	3,813 51	124,668 63	258 00	124,410 63
Ipswich, . . . . .	10,822 00	511 00	1,369 16	507 80	-	1,442 73	203 55	14,856 24	1,438 05	13,418 19
Lawrence, . . . . .	127,998 25	-	20,093 28	2,030 00	3,000 00	12,490 30	237 56	165,849 39	-	165,849 39
Lynn, . . . . .	178,591 53	-	28,729 62	3,700 00	2,700 00	22,421 57	6,053 14	242,195 86	-	242,195 86
Lynnfield, . . . . .	2,229 00	100 00	375 75	95 00	-	177 04	97 10	3,073 89	355 51	2,718 38
Manchester, . . . . .	6,885 00	390 00	1,698 73	125 50	400 00	1,006 41	356 02	10,861 66	-	10,861 66
Marblehead, . . . . .	16,623 80	-	2,576 63	75 00	680 63	1,073 06	591 82	21,620 94	-	21,620 94
Merrimac, . . . . .	6,958 06	487 50	947 67	158 87	352 50	771 45	544 31	9,820 36	678 68	9,141 68
Methuen, . . . . .	17,236 41	-	2,901 35	-	1,405 20	1,378 51	747 16	23,668 63	-	23,668 63
Middleton, . . . . .	1,868 00	643 50	184 50	105 00	-	161 46	72 52	3,034 98	394 38	2,640 60
Nahant, . . . . .	4,507 17	-	285 06	325 00	-	401 82	66 00	5,585 05	-	5,585 05
Newbury, . . . . .	2,735 00	269 20	339 22	80 50	-	698 95	254 67	4,377 54	432 38	3,945 16
Newburyport, . . . . .	24,744 46	-	3,249 62	600 00	1,200 00	1,531 08	858 75	32,083 91	675 00	31,408 91
North Andover, . . . . .	11,709 05	78 00	2,023 95	155 00	600 00	1,320 49	78 39	15,964 88	406 03	15,558 85
Peabody, . . . . .	26,582 55	438 05	5,163 96	600 00	1,200 00	1,361 13	427 52	35,773 21	525 00	35,248 21

Rockport, . . .	8,374 84	-	1,545 93	230 00	600 00	674 26	340 97	11,766 00	244 43	11,521 57
Rowley, . . .	1,774 02	453 41	183 87	75 00	300 00	128 00	48 93	2,963 23	605 52	2,357 71
Salem, . . .	90,780 43	-	15,442 39	2,010 00	2,500 00	7,939 90	1,877 18	120,549 90	-	120,549 90
Salisbury, . . .	2,725 55	308 50	296 90	155 00	-	355 49	71 53	3,912 97	459 18	3,453 79
Saugus, . . .	13,202 00	350 00	3,343 96	110 00	1,000 00	1,654 22	462 71	20,122 89	141 00	19,981 89
Swampscott, . . .	11,502 12	-	2,336 73	428 25	-	1,940 75	1,032 72	17,240 57	-	17,240 57
Topsfield, . . .	2,335 00	417 00	192 50	110 00	-	178 48	190 25	3,423 23	355 52	3,067 71
Wenham, . . .	2,308 25	-	181 98	127 00	-	148 96	51 35	2,817 54	355 52	2,462 02
West Newbury, . . .	3,674 69	-	384 80	305 51	300 00	354 52	-	5,019 52	355 52	4,664 00
Totals, . . .	\$827,525 00	\$8,506 37	\$138,209 30	\$16,871 71	\$25,432 08	\$86,616 02	\$23,601 67	\$1,126,762 15	\$14,657 03	\$1,112,105 12



## SCHOOL RETURNS.

XXV

Rockport, . . .	591 76	213 09	804 85	-	804 85	12,326 42	-	-	-	-
Rowley, . . .	-	62 68	62 68	-	62 68	2,420 39	-	-	-	-
Salem, . . .	5,787 31	2,846 43	8,633 77	-	8,633 77	129,183 67	11	-	-	2,212
Salisbury, . . .	-	427 10	427 10	-	427 10	3,880 89	-	-	-	-
Saugus, . . .	28,500 00	350 00	28,850 00	-	28,850 00	48,831 89	-	-	-	-
Swampscott, . . .	-	813 00	813 00	-	813 00	18,053 57	-	-	1	9
Topsfield, . . .	1,148 76	76 80	1,225 56	-	1,225 56	4,293 27	-	-	-	-
Wenham, . . .	120 71	104 92	225 63	-	225 63	2,687 65	-	-	-	-
West Newbury, . . .	-	259 06	259 06	-	259 06	4,923 06	-	-	-	-
Totals, . . .	\$277,168 14	\$55,393 63	\$362,705 52	\$831 53	\$361,573 99	\$1,473,979 11	44	712	5	9,464

## BOARD OF EDUCATION.

## FRANKLIN COUNTY.

TOWNS AND CITIES.	Population—State Census of 1895.	Valuation—May 1, 1899.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1899.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.									
				No. of persons in town between 5 and 15 years of age.	No. of persons in town and 14 years of age.	No. of different pupils within the year.	No. of different pupils under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.			
Ashfield.	1,013	\$532,307	10	149	111	176	4	15	108	160	152	.95			
Barnardston.	778	390,179	8	109	83	120	-	1	80	94	85	.91			
Buckland.	1,548	557,669	9	284	197	283	-	12	206	247	231	.94			
Charlemont.	1,041	349,130	10	173	141	233	8	35	145	188	176	.93			
Colrain.	1,610	582,833	15	282	205	357	3	15	263	269	240	.89			
Conway.	1,304	658,382	11	205	162	241	2	25	168	287	225	.92			
Deerfield.	3,007	1,305,990	13	293	200	301	2	8	222	262	221	.84			
Erving.	964	397,721	6	188	141	219	3	4	129	190	182	.96			
Gill.	1,082	486,186	5	120	78	127	2	3	78	98	91	.84			
Greenfield.	6,229	5,910,725	38	1,289	905	1,516	75	195	935	1,358	1,243	.92			
Hawley.	468	146,504	6	73	49	70	2	3	45	60	56	.93			
Heath.	476	156,544	7	93	72	119	1	11	82	93	87	.93			
Leverett.	744	265,304	4	124	86	130	-	2	86	105	94	.90			
Leyden.	363	195,254	5	66	41	77	1	7	53	59	52	.88			
Monroe.	298	138,384	4	45	30	68	1	4	39	50	46	.83			
Montague.	6,058	3,689,650	30	1,190	872	1,208	12	117	729	1,029	978	.95			
New Salem.	869	277,430	10	153	116	195	-	36	120	151	134	.88			
Northfield.	1,851	915,931	10	238	168	263	9	9	173	217	196	.90			
Orange.	5,361	2,874,365	27	999	704	1,169	4	155	711	1,069	1,016	.95			
Rowe.	498	172,760	6	85	56	70	1	6	58	60	54	.89			
Shelburne.	1,560	890,761	10	218	148	255	1	39	160	221	210	.95			
Shutesbury.	444	168,260	4	54	35	68	1	3	33	44	40	.91			
Sunderland.	696	441,945	3	111	79	139	1	9	100	105	99	.94			

# SCHOOL RETURNS.

xxvii

Warwick,	.	.	599	342,405	5	114	64	136	-	11	74	121	98	.81
Wendell,	.	.	529	236,598	5	100	73	94	1	3	64	67	64	.96
Whately,	.	.	755	406,788	4	84	77	102	3	1	59	80	74	.93
Totals,	.	.	40,145	\$22,490,005	265	6,839	4,893	7,726	152	730	4,920	6,684	6,144	.92

## HAMPDEN COUNTY.

Agawam,	.	.	2,408	\$1,347,700	13	402	344	454	5	15	332	383	348	.91
Blandford,	.	.	849	440,775	8	165	122	181	4	12	133	154	138	.90
Brinfield,	.	.	962	406,488	8	162	119	152	-	-	119	130	116	.89
Chester, .	.	.	1,429	579,651	8	261	187	316	-	14	187	234	209	.89
Chicopee,	.	.	16,420	9,250,830	56	3,072	2,112	2,370	30	213	1,606	2,154	1,989	.92
East Longmeadow,	.	.	1,591	491,235	9	333	256	336	4	15	252	299	270	.90
Granville,	.	.	1,005	356,496	7	131	138	195	4	13	147	188	137	.73
Hampden,	.	.	743	383,179	5	108	85	123	-	5	110	89	80	.91
Holland,	.	.	199	87,557	1	25	18	22	1	-	17	14	12	.92
Holyoke,	.	.	40,322	37,660,950	146	9,228	6,401	6,633	92	669	4,112	5,407	4,972	.92
Longmeadow,	.	.	630	814,385	5	133	96	128	4	8	82	97	90	.92
Ludlow,	.	.	2,562	1,360,959	18	565	429	560	-	37	418	412	368	.89
Monson,	.	.	3,746	1,771,718	19	563	411	642	9	102	428	588	548	.93
Montgomery,	.	.	275	141,207	5	49	46	50	2	2	46	46	41	.89
Palmer,	.	.	6,856	2,803,853	31	1,155	872	1,304	9	101	872	1,050	972	.93
Russell, .	.	.	846	491,004	7	127	105	131	2	2	114	119	109	.90
Southwick,	.	.	961	488,345	10	185	130	213	5	21	167	171	152	.89
Springfield,	.	.	51,522	69,869,847	229	9,738	7,488	11,786	67	1,107	6,497	9,072	8,419	.92
Tolland,	.	.	309	143,857	7	56	43	62	1	1	42	62	60	.97
Twinsfield,	.	.	783	264,009	6	141	111	158	-	3	125	116	106	.91
Wales, .	.	.	10,663	8,105,653	43	2,068	1,432	2,129	10	300	1,474	1,775	1,648	.93
Westfield,	.	.	6,125	4,890,593	37	1,403	993	1,688	95	132	1,080	1,381	1,279	.92
West Springfield,	.	.	1,740	770,340	11	277	195	318	2	19	226	222	201	.90
Wilbraham,	.	.												
Totals,	.	.	152,938	\$142,920,631	689	30,457	22,133	30,011	342	2,791	18,586	24,163	22,264	.92

## FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.					
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg. No. of months the public schools during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Ashfield, .	11	1	13	1	2	\$80 00	\$26 10	82	8-4	1*	2	30	10	\$800 00
Barnardston, .	6	—	6	—	—	—	29 20	51	8-10	1†	3	66	9-18	850 00
Buckland, .	9	—	12	4	4	—	36 30	78-15	8-15	—	—	—	—	—
Charlemont, .	10	—	12	—	2	—	33 78	85	8-10	1	1	37	10	400 00
Colrain, .	15	2	20	2	3	30 00	28 00	123-15	8-5	—	—	—	—	—
Conway, .	11	—	15	—	2	—	33 00	68-15	8-10	1	2	29	9	550 00
Deerfield, .	13	—	18	8	8	—	33 00	108-10	8-10	1	2	20	10	800 00
Erving, .	7	—	7	2	2	—	35 00	54	9	—	—	—	—	—
Gill, .	5	1	8	4	5	28 00	32 75	45	9	1	6	180	9-15	1,600 00
Greenfield, .	41	2	44	11	13	117 50	46 70	361	9-10	1	—	—	—	—
Hawley, .	6	—	9	2	3	—	32 00	48	8	—	—	—	—	—
Heath, .	7	—	11	—	—	—	29 15	56	8	—	—	—	—	—
Leverett, .	4	—	6	—	—	—	37 00	34	8-10	—	—	—	—	—
Leyden, .	5	—	10	—	—	—	29 60	39-5	7-17	—	—	—	—	—
Monroe, .	4	—	6	2	4	—	38 00	33	8-5	—	—	—	—	—
Montague, .	36	2	36	13	15	113 50	39 94	285	9-5	2	7	174	{ 9-10 9-10	1,400 00 1,000 00
New Salem, .	10	1	12	1	1	62 04	30 14	82	8-2	1	2	41	9	558 33
Northfield, .	10	1	9	3	4	48 00	36 00	81	9	—	—	—	—	—
Orange, .	29	1	32	13	15	133 33	43 50	241-7	8-18	1	4	144	9-15	1,300 00
Rowe, .	6	—	7	2	2	—	29 71	38-10	6-8	—	—	—	—	—
Shelburne, .	14	1	13	—	2	142 10	39 50	90	9	1†	4	31	9-10	1,350 00
Shutesbury, .	4	—	6	—	1	—	33 71	32	8	—	—	—	—	—
Sunderland, .	5	—	5	—	1	—	39 33	27	9	—	—	—	—	—



# SCHOOL RETURNS.

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## HAMPDEN COUNTY — CONTINUED.

Warwick, . . .	5	1	4	1	5	36 00	32 25	33-6	6-13	-	-	-	-
Wendell, . . .	5	-	8	4	4	-	30 60	39-10	7-18	-	-	-	-
Whately, . . .	4	-	4	3	3	-	32 00	33	8-5	-	-	-	-
Totals, . . .	282	13	333	77	101	\$80 88	\$36 21	2,250-13	8-9	11	33	752	\$10,608 33

Agawam, . . .	13	4	17	4	6	\$51 00	\$35 63	117	9	-	-	-	-
Bandford, . . .	8	1	11	3	4	36 00	29 73	59-7	7-2	-	-	-	-
Brimfield, . . .	8	1	13	4	4	33 00	31 62	66-10	8-6	10	65	10	\$1,200 00
Chester, . . .	8	1	14	4	5	-	33 33	67-18	8-4	-	-	-	-
Chicopee, . . .	61	4	60	23	27	185 00	45 47	468-7	9-11	1	6	124	1,800 00
East Longmeadow, . . .	9	-	13	4	7	-	36 45	83-5	9-5	-	-	-	-
Granville, . . .	7	2	13	7	8	48 00	32 66	59-10	8-10	-	-	-	-
Hampden, . . .	5	-	6	1	1	-	33 00	45	9	-	-	-	-
Holland, . . .	1	-	1	-	-	-	40 00	9	9	-	-	-	-
Holyoke, . . .	190	26	200	49	54	128 68	59 82	1,410-6	9-13	1	24	577	2,300 00
Longmeadow, . . .	5	5	5	3	3	-	40 03	41-14	8-6	-	-	-	-
Ludlow, . . .	18	2	22	5	7	90 00	35 43	153	9	1	2	23	900 00
Monson, . . .	26	3	29	6	6	104 66	38 84	165-6	8-14	1	7	118	1,500 00
Montgomery, . . .	5	4	9	1	4	-	30 00	40	8	-	-	-	-
Palmer, . . .	34	1	33	16	20	150 00	41 06	296-10	9-11	1	4	90	1,500 00
Russell, . . .	7	1	11	1	2	-	30 00	59-10	8-10	-	-	-	-
Southwick, . . .	10	1	12	1	2	60 00	29 77	87	8-14	-	-	-	-
Springfield, . . .	311	21	290	168	184	171 25	63 00	2,290	10	2	36	640	3,500 00
Tolland, . . .	7	-	8	-	1	-	28 12	54-15	8	-	-	-	2,700 00
Wales, . . .	6	-	8	4	5	-	34 66	54	9	-	-	-	-
Westfield, . . .	63	9	65	50	53	98 75	52 23	430	10	1	8	236	2,600 00
West Springfield, . . .	45	3	49	20	27	111 48	43 36	344-11	9-6	1	5	141	1,800 00
Wilbraham, . . .	11	-	12	2	2	-	35 12	99	9	-	-	-	-
Totals, . . .	858	78	901	373	432	\$127 92	\$31 91	6,501-9	9-8	10	95	2,014	\$19,800 00

\* United with Sanderson Academy.

† Powers Institute.

‡ Arms Academy.

§ Hitchcock Free Academy.

|| Monson Academy.

## BOARD OF EDUCATION.

## FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerk and treasurer.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Ashfield, . . . . .	\$2,593 97	\$35 00	\$126 85	\$68 85	-	\$131 50	\$12 00	\$2,968 17	\$509 88	\$2,458 29
Bernardston, . . . . .	1,656 00	60 00	107 45	75 00	-	74 22	47 94	2,020 61	1,112 05	908 56
Buckland, . . . . .	3,415 28	175 00	508 65	10 00	\$450 00	330 03	48 60	4,937 66	884 18	4,053 38
Charlément, . . . . .	2,952 00	250 38	229 72	57 90	526 37	200 85	88 79	4,306 01	1,778 67	2,527 34
Colrain, . . . . .	3,496 50	417 35	171 83	73 95	600 00	336 56	18 03	5,114 22	1,027 88	4,086 34
Conway, . . . . .	2,662 19	258 00	318 02	218 04	426 40	299 16	95 30	4,277 11	751 25	3,525 86
Deerfield, . . . . .	3,421 42	958 90	445 31	183 50	827 60	309 88	370 63	6,517 24	1,048 84	5,468 40
Erving, . . . . .	2,774 30	414 65	144 50	40 00	215 77	160 30	42 82	3,792 05	1,072 09	2,719 96
Gill, . . . . .	2,100 50	39 00	150 50	25 00	288 48	109 39	21 70	2,734 87	1,127 62	1,606 95
Greenfield, . . . . .	22,789 04	665 54	3,857 91	90 00	1,800 00	2,187 45	1,563 95	32,953 89	106 00	32,847 89
Hawley, . . . . .	1,626 00	106 66	37 55	22 64	309 81	55 91	5 46	2,164 03	1,262 63	901 40
Heath, . . . . .	1,603 25	117 25	91 40	83 00	-	69 82	12 63	1,936 35	912 38	1,023 97
Leverett, . . . . .	1,235 10	278 75	71 11	83 00	300 00	141 79	17 12	2,126 87	1,230 33	896 54
Leyden, . . . . .	1,260 00	-	63 00	50 00	-	109 45	39 72	1,622 17	798 99	723 18
Monroe, . . . . .	1,253 00	-	75 60	15 00	204 26	84 19	8 00	1,640 05	929 93	710 12
Montague, . . . . .	16,196 59	1,518 70	2,453 29	120 00	1,500 00	1,559 59	614 30	23,962 47	554 77	23,407 70
New Salem, . . . . .	2,349 33	25 50	156 77	49 50	-	259 23	-	2,840 33	1,144 71	1,695 62
Northfield, . . . . .	3,595 00	339 80	335 38	46 40	519 12	289 19	30 00	5,154 89	903 08	4,251 81
Orange, . . . . .	12,811 84	1,422 60	2,486 45	378 00	1,204 90	2,077 30	451 41	20,832 56	1,238 46	19,594 04
Rowe, . . . . .	1,568 58	178 00	74 80	40 50	154 86	127 68	-	2,144 42	820 54	1,323 88
Shelburne, . . . . .	4,205 75	404 50	558 73	1 50	450 00	346 91	95 69	6,063 08	978 03	5,085 05
Shutesbury, . . . . .	1,090 60	176 80	23 64	51 00	-	50 94	8 12	1,401 10	762 27	638 83
Sunderland, . . . . .	1,695 00	765 46	345 03	47 00	174 96	200 87	26 63	3,254 96	786 82	2,468 13

# SCHOOL RETURNS.

xxx1

Warwick, . . .	1,282 55	575 89	59 05	6 00	692 40	58 05	47 00	2,720 94	1,341 64	1,379 30
Wendell, . . .	1,435 50	81 35	71 50	36 00	88 38	50 79	25 34	1,788 86	805 70	983 16
Whately, . . .	1,119 50	231 00	102 72	75 00	159 28	239 64	35 39	1,982 53	800 84	1,181 69
Totals, . . .	\$102,188 79	\$9,496 09	\$13,066 76	\$1,905 78	\$10,892 59	\$9,880 69	\$3,726 27	\$151,156 97	\$24,689 58	\$126,467 39

## HAMPDEN COUNTY — CONTINUED.

Agawam, . . .	\$5,548 66	\$212 31	\$969 81	\$132 00	\$630 00	\$319 93	\$63 12	\$7,875 83	\$955 14	\$6,920 69
Blandford, . . .	1,824 60	424 00	47 47	5 07	100 00	104 52	18 81	2,524 47	629 51	1,894 96
Brimfield, . . .	2,106 20	26 50	181 84	25 50	450 00	151 64	16 20	2,937 88	865 55	2,092 33
Chester, . . .	2,344 70	150 40	399 94	130 00	640 16	274 50	10 00	3,949 70	896 81	3,052 89
Chicopee, . . .	33,288 08	712 75	6,159 55	362 00	1,895 33	2,968 83	1,908 93	47,295 47	-	47,295 47
East Longmeadow, . . .	3,617 00	-	568 82	62 50	310 63	235 00	11 15	4,805 10	1,128 11	3,676 99
Granville, . . .	2,183 60	173 00	138 74	35 00	435 00	166 78	117 14	3,402 21	933 88	2,468 33
Hampden, . . .	1,481 00	173 00	214 28	75 00	173 39	134 95	5 00	2,256 62	681 99	1,574 63
Holland, . . .	360 00	144 85	20 39	30 00	-	14 65	-	569 89	344 89	225 00
Holyoke, . . .	131,801 37	22 80	25,359 93	3,425 04	3,266 66	12,672 47	7,297 08	183,845 35	-	183,845 35
Longmeadow, . . .	2,499 08	223 00	607 55	-	184 46	192 66	117 73	3,824 48	635 75	3,188 73
Ludlow, . . .	6,675 36	112 00	845 34	180 00	516 17	532 00	351 58	9,212 45	1,472 82	7,739 63
Monson, . . .	9,547 80	403 80	965 16	150 75	1,050 00	903 59	197 86	13,218 28	1,353 18	11,865 28
Montgomery, . . .	1,300 00	-	48 10	21 50	-	61 39	32 78	1,463 77	855 18	608 59
Palmer, . . .	15,213 63	734 96	2,728 17	95 50	500 00	1,941 17	651 05	21,768 98	343 52	21,425 46
Russell, . . .	1,920 00	9 00	159 63	70 00	-	107 21	129 40	2,420 74	647 38	1,773 36
Southwick, . . .	3,055 00	601 29	42,545 70	4,102 41	435 00	215 10	9,863 15	4,096 05	1,962 56	2,133 49
Springfield, . . .	216,647 14	-	49,545 70	70 00	4,000 00	26,892 38	2 00	304,612 07	1,817 72	302,794 35
Tolland, . . .	1,250 00	-	43 25	43 00	-	44 95	-	1,383 20	716 05	667 15
Wales, . . .	1,849 57	125 80	163 71	21 20	300 00	102 16	-	2,562 44	1,317 18	1,245 26
Westfield, . . .	37,193 90	721 60	6,345 61	373 25	2,166 62	2,729 88	862 50	50,393 36	4,893 79	45,499 57
West Springfield, . . .	20,005 58	230 00	4,080 45	110 00	1,525 00	1,858 62	512 99	28,322 64	1,413 40	26,909 24
Wilbraham, . . .	4,251 14	-	455 93	110 75	387 38	468 25	16 00	5,689 65	1,164 35	4,525 30
Totals, . . .	\$505,962 91	\$5,354 01	\$93,350 32	\$9,560 47	\$18,966 00	\$53,052 63	\$22,204 47	\$708,450 81	\$25,028 76	\$683,422 05

## BOARD OF EDUCATION.

## FRANKLIN COUNTY — CONCLUDED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for all school purposes.	ACADEMIES AND PRIVATE SCHOOLS.			
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.
Ashfield, .	-	-	\$4 00	\$4 00	-	\$4 00	\$2,462 29	1*	-	-	-
Barnardston, .	-	-	-	-	-	-	908 56	-	-	-	-
Buckland, .	-	\$36 00	100 00	136 00	-	136 00	4,189 38	-	-	-	-
Charlemont, .	-	-	-	31 88	-	31 88	2,559 22	-	-	-	-
Colrain, .	-	125 00	35 92	160 92	-	160 92	4,246 86	-	-	-	-
Conway, .	-	-	250 50	250 50	-	250 50	3,776 36	-	16	-	-
Deerfield, .	-	-	89 93	89 93	-	89 93	5,568 33	1	-	-	-
Erving, .	-	-	48 59	48 59	-	48 59	2,768 56	-	-	-	12
Gill, .	-	-	51 87	51 87	-	51 87	1,658 82	1	483	1	-
Greenfield, .	-	700 00	1,188 91	1,888 91	-	1,888 91	34,736 80	1	21	-	-
Hawley, .	-	92 28	-	92 28	-	92 28	993 68	-	-	-	-
Heath, .	-	-	39 80	39 80	-	39 80	1,063 77	-	-	-	-
Leverett, .	-	-	125 05	125 05	\$71 41	53 64	950 18	-	-	-	-
Leyden, .	-	178 24	-	178 24	-	178 24	901 42	-	-	-	-
Monroe, .	-	-	13 93	13 93	-	13 93	724 05	-	-	-	-
Montague, .	-	849 05	795 31	1,644 36	-	1,644 36	25,052 06	-	-	-	198
New Salem, .	-	-	-	-	-	-	1,695 62	1	1	-	-
Northfield, .	-	55 00	139 86	194 86	-	194 86	4,446 67	1	398	-	-
Orange, .	-	20,325 10	450 14	20,775 24	-	20,775 24	40,369 28	-	-	-	-
Rowe, .	-	-	64 03	64 03	-	64 03	1,387 91	-	-	-	-
Shelburne, .	-	80 52	-	115 95	-	115 95	5,201 00	2	106	-	-
Shutesbury, .	-	-	66 41	66 41	-	66 41	705 24	-	-	-	-
Sunderland, .	-	51 33	41 51	92 84	-	92 84	2,560 97	-	-	-	-

# SCHOOL RETURNS.

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Warwick, . . . . .	-	9 55	9 55	1,388 85	-	-	-
Wendell, . . . . .	-	57 52	57 52	1,008 28	-	-	-
Whately, . . . . .	-	43 00	113 65	1,295 34	-	-	-
Totals, . . . . .	-	\$22,535 52	\$3,710 39	\$26,245 91	\$103 81	\$26,142 10	8
						1,025	2
							210

## HAMPDEN COUNTY — CONCLUDED.

Agawam, . . . . .	-	\$289 08	\$110 16	\$399 24	\$175 00	\$399 24	\$7,319 93	1	-	-	55
Blandford, . . . . .	-	215 05	20 69	235 74	-	60 74	1,955 70	-	-	-	-
Brimfield, . . . . .	-	-	115 55	115 55	-	115 55	2,207 88	-	72	-	-
Chester, . . . . .	-	180 00	12 98	192 98	-	192 98	3,245 87	-	-	-	-
Chicopee, . . . . .	\$26,630 14	-	1,686 43	28,316 57	-	28,316 57	75,612 04	3	-	-	891
East Longmeadow, . . . . .	-	-	446 20	446 20	-	446 20	4,123 19	-	-	-	-
Granville, . . . . .	-	-	239 30	239 30	-	239 30	2,707 63	-	-	-	-
Hampden, . . . . .	-	-	-	329 34	-	329 34	1,903 97	-	-	-	-
Holland, . . . . .	-	329 34	-	329 34	-	-	225 00	-	-	-	-
Holyoke, . . . . .	-	-	4,638 09	4,638 09	-	4,638 09	188,483 44	-	-	-	4,416
Longmeadow, . . . . .	1,075 76	325 38	30 44	1,431 58	-	1,431 58	4,620 31	-	-	-	-
Ludlow, . . . . .	-	-	308 20	308 20	-	308 20	8,047 83	-	-	-	-
Monson, . . . . .	-	200 00	413 02	613 02	-	613 02	12,478 30	1	118	-	10
Montgomery, . . . . .	-	-	23 68	23 68	-	23 68	632 27	-	-	-	-
Palmer, . . . . .	-	320 11	248 96	569 07	-	569 07	21,994 53	1	-	-	125
Russell, . . . . .	-	213 20	-	213 20	-	213 20	1,986 56	-	-	-	-
Southwick, . . . . .	-	-	20 77	20 77	-	20 77	2,154 26	-	-	-	-
Springfield, . . . . .	71,783 82	1,815 16	10,890 93	84,489 91	-	84,489 91	387,284 26	-	-	9	1,845
Tolland, . . . . .	-	-	-	-	-	-	667 15	-	-	-	-
Wales, . . . . .	-	-	3 60	3 60	-	3 60	1,248 86	-	-	-	-
Westfield, . . . . .	-	1,992 84	2,528 76	4,521 60	-	4,521 60	50,021 17	1*	-	1	27
West Springfield, . . . . .	-	739 49	640 53	1,380 02	-	1,380 02	28,289 26	-	-	-	-
Wilbraham, . . . . .	-	-	237 10	237 10	-	237 10	4,762 40	-	165	-	-
Totals, . . . . .	\$99,489 72	\$6,619 65	\$22,615 39	\$128,724 76	\$175 00	\$128,549 76	\$811,971 81	4	355	24	7,369

\* United with high school.

## HAMPSHIRE COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1899.		No. of public schools.	SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.								
	No. of persons in town between 5 and 15 years of age.	No. of persons in town between 7 and 14 years of age.		No. of different pupils of all ages in the public school during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.		
Amherst, . . . . .	4,785	\$3,168,982	18	642	450	889	9	157	487	694	651	.94
Belchertown, . . . . .	2,161	860,435	20	405	309	512	12	37	312	394	355	.90
Chesterfield, . . . . .	589	279,308	6	92	69	105	2	10	69	80	71	.89
Cummington, . . . . .	750	287,195	6	134	98	144	2	6	98	126	121	.96
Easthampton, . . . . .	4,790	2,919,567	25	857	608	931	6	86	647	830	784	.85
Enfield, . . . . .	990	817,740	8	206	168	241	2	11	185	175	146	.83
Goshen, . . . . .	304	139,513	3	65	48	66	1	3	47	50	46	.92
Granby, . . . . .	748	460,766	9	126	97	194	4	12	124	150	132	.88
Greenwich, . . . . .	481	249,995	3	72	53	74	1	4	53	62	57	.92
Hadley, . . . . .	1,704	974,484	11	226	160	258	1	4	167	223	204	.92
Hatfield, . . . . .	1,262	1,016,904	8	225	160	229	6	6	160	199	180	.90
Huntington, . . . . .	1,450	510,041	10	297	223	347	6	10	234	281	259	.92
Middlefield, . . . . .	386	137,425	5	98	65	146	3	5	104	106	96	.90
Northampton, . . . . .	16,746	11,906,866	69	3,035	2,089	2,696	134	268	1,630	2,326	2,200	.85
Pelham, . . . . .	486	178,137	4	107	76	120	1	4	83	85	76	.89
Plainfield, . . . . .	450	158,081	5	77	60	89	1	3	68	66	60	.91
Prescott, . . . . .	401	160,810	5	67	50	70	1	3	46	58	54	.93
Southampton, . . . . .	1,054	498,960	8	196	151	204	2	5	155	180	162	.90
South Hadley, . . . . .	4,443	2,103,142	22	790	554	941	5	35	632	810	754	.93
Ware, . . . . .	7,651	4,079,285	27	1,421	1,045	1,268	15	97	768	1,015	938	.92
Westhampton, . . . . .	476	212,964	5	108	75	117	5	4	59	93	87	.94
Williamsburg, . . . . .	1,955	851,322	16	380	286	449	2	14	331	368	338	.92
Worthington, . . . . .	648	305,126	8	124	109	155	2	3	111	121	111	.92
Totals, . . . . .	54,710	\$32,337,048	301	9,740	7,003	10,245	215	787	6,570	8,492	7,882	.93

## SCHOOL RETURNS.

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## HAMPSHIRE COUNTY — CONTINUED

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.								LENGTH OF SCHOOLING.		HIGH SCHOOLS.			
	No. of teachers re- quired by the pub- lic schools.	No. of different male teachers employed during the school year.	No. of different fe- male teachers em- ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor- mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Ave'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Amherst, . . . . .	23	2	30	4	6	\$110 00	\$40 00	162-4	9	1	6	150	9-7	\$1,600 00
Berchertown, . . . . .	20	2	25	1	2	58 44	27 47	156-10	7-16	1	2	92	9-5	822 22
Chesterfield, . . . . .	6	1	9	1	2	32 00	27 90	48-10	8-1	-	-	-	-	-
Cummington, . . . . .	6	3	6	2	2	40 00	32 75	45	7-10	-	-	-	-	-
Easthampton, . . . . .	28	2	37	14	16	150 00	38 81	219-5	8-15	1	3	74	9-15	1,500 00
Enfield, . . . . .	6	-	15	10	11	-	34 00	73-5	9-17	-	-	-	-	-
Goshen, . . . . .	3	1	6	1	1	-	32 00	24	8	-	-	-	-	-
Granby, . . . . .	9	1	8	1	1	55 55	27 33	75	8-6	1	1	21	9	500 00
Greenwich, . . . . .	3	-	4	2	2	-	37 33	23-18	8-18	-	-	-	-	-
Hadley, . . . . .	11	1	11	3	3	84 21	28 45	90-15	8-5	1*	1	35	9-10	800 00
Hartfield, . . . . .	8	-	11	-	-	-	30 45	72	9	-	-	-	-	-
Huntington, . . . . .	10	1	14	2	5	60 00	26 60	77	7-14	-	-	-	-	-
Middlefield, . . . . .	5	-	9	1	3	-	33 60	39-8	7-17	-	-	-	-	-
Northampton, . . . . .	87	7	93	31	37	124 00	43 24	639-9	9-5	1	8	172	9-15	1,700 00
Pelham, . . . . .	4	-	6	2	2	-	36 50	29-15	7-8	-	-	-	-	-
Plainfield, . . . . .	5	-	9	2	2	-	31 05	40	8	-	-	-	-	-
Prescott, . . . . .	5	1	5	-	2	26 00	24 50	40	8	-	-	-	-	-
Southington, . . . . .	8	1	7	4	5	40 00	31 71	70-1	8-16	-	-	-	-	-
South Hadley, . . . . .	26	1	26	4	4	115 79	39 00	218-5	9-5	1	2	65	9-10	1,100 00
Ware, . . . . .	32	2	32	12	12	125 00	44 11	263-5	9-15	1	5	133	9-15	2,000 00
Westhampton, . . . . .	6	-	6	2	2	-	33 00	40	8	-	-	-	-	-
Williamsburg, . . . . .	17	2	19	3	5	56 09	30 46	144	9-12	2	3	63	{ 10 2-15	600 00 560 00 70 00
Worthington, . . . . .	8	-	12	4	4	-	30 00	66	8-5	1	1	15	2-15	-
Totals, . . . . .	337	27	400	105	128	\$88 90	\$36 74	2,663-10	8-16	11	32	820	8-19	\$11,252 22

\* Hopkins Academy.

## HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Amherst, . . . . .	\$10,841 50	\$748 46	\$1,543 28	\$165 00	\$1,500 00	\$1,342 50	\$832 76	\$16,973 50	\$1,026 50	\$15,947 00
Belchertown, . . . . .	4,892 22	2 50	315 44	258 00	-	519 70	33 63	6,011 49	1,412 28	4,599 21
Chesterfield, . . . . .	1,399 00	110 50	78 50	61 25	-	73 56	17 26	1,740 07	646 64	1,093 43
Cummington, . . . . .	1,609 00	287 00	114 35	34 50	-	128 82	63 50	2,237 17	890 00	1,347 17
Easthampton, . . . . .	11,655 10	371 71	1,714 42	-	1,162 58	1,531 50	393 62	16,838 93	1,253 70	15,575 23
Enfield, . . . . .	2,241 00	208 00	173 00	135 00	-	345 00	24 00	3,126 00	944 00	2,182 00
Goshen, . . . . .	816 00	-	42 64	29 50	-	62 65	25 00	975 79	612 50	363 29
Granby, . . . . .	2,347 06	91 50	313 45	82 00	367 95	126 84	53 34	3,382 15	890 28	2,491 87
Greenwich, . . . . .	912 00	453 50	73 00	50 00	-	115 81	5 00	1,609 31	636 86	972 45
Hadley, . . . . .	2,592 50	230 00	392 90	188 00	-	385 38	39 00	3,817 78	442 51	3,375 27
Hatfield, . . . . .	2,962 06	-	377 54	85 25	440 00	318 90	12 00	4,195 75	615 51	3,580 24
Huntington, . . . . .	2,633 50	46 00	508 35	117 38	-	328 16	15 00	3,648 39	439 88	3,208 51
Middlefield, . . . . .	1,355 20	-	80 00	-	288 62	122 88	5 35	1,852 05	1,309 38	542 67
Northampton, . . . . .	42,368 65	691 70	8,420 69	566 55	1,800 00	4,813 07	1,233 99	59,894 65	56 23	59,838 42
Pelham, . . . . .	1,179 00	-	49 00	-	50 00	172 92	11 61	1,462 53	779 52	683 01
Plainfield, . . . . .	1,242 00	7 80	80 50	73 00	-	101 95	19 31	1,524 56	1,024 56	500 00
Prescott, . . . . .	1,315 00	24 00	84 58	-	50 00	71 35	12 50	1,617 43	912 38	705 05
Southampton, . . . . .	2,628 36	-	204 22	103 50	221 50	147 86	15 00	3,220 44	1,099 10	2,121 34
South Hadley, . . . . .	11,914 36	150 00	2,529 94	340 00	1,161 61	1,185 46	395 75	17,677 12	1,252 48	16,424 64
Ware, . . . . .	15,877 20	765 75	4,443 34	85 25	2,000 00	1,587 64	754 71	25,013 89	-	25,013 89
Westhampton, . . . . .	1,649 16	-	100 70	39 75	92 29	70 88	28 67	1,981 45	914 38	1,067 07
Williamsburg, . . . . .	4,917 20	133 00	576 45	210 00	749 86	473 91	75 82	7,136 24	2,088 89	5,047 35
Worthington, . . . . .	2,062 00	20 00	143 90	75 00	-	178 77	12 40	2,492 07	1,593 17	898 90
Totals, . . . . .	\$130,849 07	\$4,941 42	\$22,360 20	\$2,698 93	\$9,884 41	\$14,205 51	\$4,079 22	\$188,418 76	\$20,840 75	\$167,578 01



# SCHOOL RETURNS.

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## HAMPSHIRE COUNTY — CONCLUDED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three pre- ceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxa- tion.	Amount raised by local taxation and expended for school buildings.		Amount raised by local taxation and expended for support of the public schools and for all school purposes.		ACADEMIES AND PRIVATE SCHOOLS.			
	New school-houses.	Alterations and per- manent repairs.	Ordinary repairs.							No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different pri- vate school pupils attending during the year.
Amherst, . . . . .	-	\$453 84	-	\$453 84	-	\$453 84	\$16,400 84	-	-	1	-	1	36
Belchertown, . . . . .	-	263 90	-	263 90	-	263 90	4,863 11	-	-	-	-	-	-
Chesterfield, . . . . .	-	60 26	60 26	60 26	-	60 26	1,153 69	-	-	-	-	-	-
Cummington, . . . . .	-	350 61	350 61	350 61	-	350 61	1,697 78	-	-	-	-	-	-
Easthampton, . . . . .	-	977 64	977 64	977 64	-	977 64	16,552 87	-	-	-	189	-	-
Enfield, . . . . .	-	67 00	67 00	67 00	-	67 00	2,249 00	-	-	-	-	-	-
Goshen, . . . . .	-	190 51	-	190 51	-	190 51	553 80	-	-	-	-	-	-
Granby, . . . . .	-	75 85	75 85	75 85	-	75 85	2,567 72	-	-	-	-	-	-
Greenwich, . . . . .	\$1,637 37	2 00	2 00	1,639 37	-	1,639 37	2,611 82	-	-	-	-	-	-
Hadley, . . . . .	-	266 56	220 00	220 00	-	220 00	3,595 27	-	-	-	35	-	-
Hatfield, . . . . .	-	48 33	48 33	314 89	-	314 89	3,895 13	-	-	1	45	-	-
Huntington, . . . . .	-	212 08	212 08	1,112 08	-	1,112 08	4,320 59	-	-	-	-	-	-
Middlefield, . . . . .	-	4 25	4 25	4 25	-	4 25	546 92	-	-	-	-	-	-
Northampton, . . . . .	-	3,643 39	23,167 72	26,811 11	-	26,811 11	86,649 53	-	-	1	145	5	813
Pelham, . . . . .	-	10 50	10 50	10 50	-	10 50	693 51	-	-	-	-	-	-
Plainfield, . . . . .	-	17 00	17 00	17 00	-	17 00	517 00	-	-	-	-	-	-
Prescott, . . . . .	-	9 92	9 92	9 92	-	9 92	714 97	-	-	-	-	-	-
Souhampton, . . . . .	-	102 68	102 68	102 68	-	102 68	2,224 02	-	-	-	-	-	-
South Hadley, . . . . .	480 00	322 90	322 90	802 90	-	802 90	17,227 54	-	-	-	-	-	-
Ware, . . . . .	-	3,095 34	735 27	3,830 61	-	3,830 61	28,844 50	-	-	-	-	1	448
Westhampton, . . . . .	-	32 08	32 08	32 08	-	32 08	1,099 15	-	-	-	-	-	-
Williamsburg, . . . . .	-	335 97	335 97	1,024 56	-	1,024 56	6,071 91	-	-	-	-	-	-
Worthington, . . . . .	-	21 22	21 22	145 59	-	145 59	1,044 49	-	-	-	-	1	16
Totals, . . . . .	\$2,117 37	\$28,696 99	\$7,702 79	\$38,517 15	-	\$38,517 15	\$206,095 16	-	-	4	364	8	1,313

## MIDDLESEX COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1899.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.														
	Population—State Census of 1895.	Valuation—May 1, 1899.	No. of public schools.	No. of persons in town between 5 and 15 years of age.		No. of persons in town between 7 and 14 years of age.	No. of different pu- bls within the year under 5 years of age.					No. of different pu- bls within the year over 15 years of age.		No. of different pu- bls within the year between 7 and 14 years of age.	Average member- ship of all the schools.	Average attendance of all the schools.	Percentage of at- tendance based on average member- ship.
				No. of persons in town between 5 and 15 years of age.	No. of persons in town between 7 and 14 years of age.		No. of different pu- bls within the year under 5 years of age.	No. of different pu- bls within the year over 15 years of age.	No. of different pu- bls within the year between 7 and 14 years of age.								
Acton, .	1,978	\$1,530,870	11	279	203	327	33	1	327	1	33	209	279	260	.93		
Arlington, .	6,515	8,843,061	36	1,364	967	1,514	165	6	1,514	6	165	969	1,347	1,263	.94		
Ashby, .	804	482,781	9	134	101	167	21	1	167	1	21	114	130	121	.93		
Ashland, .	2,090	1,139,978	9	270	191	377	40	12	377	12	40	203	317	289	.91		
Ayer, .	2,101	1,511,302	11	473	337	519	45	1	519	1	45	306	438	409	.93		
Bedford, .	1,169	1,085,546	5	191	137	240	20	1	240	1	20	191	170	156	.91		
Belmont, .	2,843	5,088,780	19	512	357	613	66	4	613	4	66	404	551	518	.94		
Billerica, .	2,577	1,876,979	15	473	344	493	42	4	493	4	42	339	428	398	.93		
Boxborough, .	307	236,802	4	57	44	68	6	2	68	2	6	46	58	55	.95		
Burlington, .	574	500,408	3	67	45	64	2	1	64	1	2	43	54	49	.90		
Cambridge, .	81,643	91,542,795	317	13,780	9,697	15,753	1,639	429	15,753	429	1,639	8,677	13,255	12,285	.93		
Carlisle, .	492	346,828	3	80	67	83	—	—	83	—	—	67	65	56	.87		
Chelmsford, .	3,162	2,446,180	20	598	472	790	50	13	790	13	50	538	708	628	.89		
Concord, .	5,175	4,139,252	17	776	540	951	169	8	951	8	169	539	848	757	.89		
Dracut, .	2,443	1,951,026	14	514	394	536	9	4	536	4	9	377	400	358	.90		
Dunstable, .	400	291,745	2	58	47	64	5	1	64	1	5	47	57	51	.91		
Everett, .	18,573	17,836,200	101	4,381	3,012	5,145	468	—	5,145	—	468	3,496	4,311	4,069	.94		
Framingham, .	9,512	9,119,878	49	1,849	1,320	2,258	270	30	2,258	30	270	1,363	1,969	1,816	.92		
Groton, .	2,192	3,144,283	14	353	255	465	64	3	465	3	64	297	397	340	.86		
Holliston, .	2,718	1,458,129	13	409	301	502	57	6	502	6	57	350	439	418	.95		
Hopkinton, .	2,984	1,786,890	15	430	340	575	58	8	575	8	58	341	465	440	.95		
Hudson, .	5,308	2,939,537	25	895	645	1,016	127	12	1,016	12	127	684	949	889	.94		
Lexington, .	3,498	5,032,005	16	553	387	752	86	11	752	11	86	444	616	567	.92		
Lincoln, .	1,111	2,452,833	5	166	116	161	20	—	161	—	20	111	136	117	.86		
Littleton, .	1,136	890,260	7	200	133	237	39	2	237	2	39	128	204	189	.93		
Lowell, .	84,367	71,251,372	272	14,449	9,649	13,957	997	1,076	13,957	1,076	997	7,257	10,584	9,651	.91		

# SCHOOL RETURNS.

xxxix

Malden, . . . . .	29,708	26,762,400	135	5,858	4,011	6,234	218	730	3,479	5,247	4,894	.93
Marlborough, . . . . .	14,977	9,284,377	63	2,968	2,158	2,796	16	360	2,158	2,434	2,263	.93
Maynard, . . . . .	3,090	2,136,428	13	521	371	586	5	54	410	552	521	.94
Medford, . . . . .	14,474	19,408,000	65	3,197	2,314	3,830	252	431	3,064	3,078	2,728	.88
Melrose, . . . . .	11,965	12,665,435	72	1,960	1,370	3,077	232	335	1,468	2,506	2,357	.94
Natick, . . . . .	8,814	5,903,050	44	1,603	1,148	1,968	-	408	1,562	1,757	1,670	.95
Newton, . . . . .	27,590	56,411,820	113	5,155	3,404	5,838	399	779	2,981	5,025	4,585	.91
North Reading, . . . . .	835	494,760	4	134	98	178	-	3	140	138	127	.92
Pepperell, . . . . .	3,321	2,210,247	20	704	550	833	11	60	526	707	642	.91
Reading, . . . . .	4,717	4,423,735	22	832	648	1,093	1	139	568	852	807	.95
Sherborn, . . . . .	1,446	793,510	5	194	144	177	-	-	120	142	130	.92
Shirley, . . . . .	1,399	765,613	6	238	181	271	-	6	193	201	178	.89
Somerville, . . . . .	52,200	51,201,350	216	9,455	6,613	10,515	438	1,172	6,347	9,298	8,776	.94
Stoneham, . . . . .	6,284	5,188,715	26	956	652	1,099	15	146	640	962	899	.93
Stow, . . . . .	920	710,188	6	142	111	144	7	10	99	122	115	.94
Sudbury, . . . . .	1,141	1,154,534	7	180	126	214	4	16	144	178	167	.93
Tewksbury, . . . . .	3,379	1,642,701	12	493	326	487	2	30	339	401	364	.91
Townsend, . . . . .	1,780	1,104,247	9	267	188	344	2	41	224	264	249	.94
Tyngsborough, . . . . .	635	408,597	4	103	67	103	1	2	73	83	73	.87
Wakefield, . . . . .	8,304	7,688,818	40	1,732	1,116	2,171	15	257	1,285	1,752	1,611	.93
Waltham, . . . . .	20,876	19,526,418	65	3,832	2,621	3,097	17	298	1,931	2,781	2,598	.93
Watertown, . . . . .	7,788	10,588,800	25	1,877	1,355	1,955	90	147	846	1,182	1,040	.91
Wayland, . . . . .	2,026	1,581,325	13	418	310	494	7	50	306	429	387	.89
Westford, . . . . .	2,418	1,276,216	16	438	404	494	4	51	404	402	369	.91
Weston, . . . . .	1,710	3,903,073	7	209	127	232	4	35	104	217	203	.93
Wilmington, . . . . .	1,420	1,075,904	9	315	208	338	7	29	269	264	235	.89
Winchester, . . . . .	6,150	8,219,960	32	1,155	786	1,602	175	138	897	1,294	1,166	.90
Woburn, . . . . .	14,178	10,107,625	57	3,147	1,896	2,917	56	344	1,797	2,647	2,423	.92
Totals, . . . . .	499,217	\$505,593,566	2,115	91,024	63,074	100,143	3,603	10,569	59,504	84,040	77,756	.93



# SCHOOL RETURNS.

xli

	8	1	8	1	1	72 00	42 86	63-15	9-2	1	2	52	10	720 00
Littleton, . . .	300	21	315	60	77	153 35	60 76	2,463-5	9-8	1	26	1,149	9-7	2,500 00
Lowell, . . .	171	16	163	50	67	141 25	59 48	1,282-10	9-10	1	19	472	9-10	2,300 00
Malden, . . .	72	2	74	9	12	145 56	54 51	597	9-7	1	11	388	9-15	1,800 00
Marlborough, . .	15	9	14	7	9	110 00	41 28	118-3	9-10	1	3	44	9-15	1,100 00
Maynard, . . .	91	14	83	34	32	140 45	60 53	641-4	9-17	1	20	558	9-17	2,500 00
Medford, . . .	85	13	89	20	43	118 89	53 47	720	10	1	12	332	10	2,100 00
Melrose, . . .	50	6	51	16	26	124 07	47 84	398-3	9-1	1	9	281	9-18	1,800 00
Natick, . . .	174	16	158	70	75	200 00	61 00	1,109-17	9-16	1	23	649	9-9	3,000 00
Newton, . . .	4	2	4	2	2	-	47 45	34-1	8-10	-	-	-	-	-
North Reading, . .	4	2	26	9	12	65 00	40 43	165-15	8-17	1	3	64	9-13	1,000 00
Pepperell, . . .	22	2	27	10	12	170 00	47 00	201-17	9-12	1	6	195	9-10	1,700 00
Reading, . . .	26	2	26	12	4	81 00	36 00	43-15	8-15	1†	2	27	9-5	750 00
Sherborn, . . .	5	1	6	4	4	52 00	41 00	51	8-8	-	-	-	-	-
Shirley, . . .	6	1	7	6	6	-	-	-	8-8	-	-	-	-	-
Smerville, . . .	263	23	235	90	113	173 48	61 93	2,268	9-10	2	34	913	9-9	2,500 00
Stoneham, . . .	29	1	33	8	12	170 00	44 37	231-8	8-18	1	4	131	9-8	2,500 00
Stow, . . .	6	1	6	1	1	84 25	36 00	54-10	9	1	18	18	9-10	1,700 00
Sudbury, . . .	8	1	10	2	2	80 55	42 77	60-2	8-11	1	2	20	8-8	800 00
Tewksbury, . . .	13	1	18	12	15	75 00	41 91	105-13	8-16	1	2	46	9-16	750 00
Townsend, . . .	11	1	15	4	9	40 00	40 65	82	9-10	1	2	48	10	500 00
Tyngsborough, . .	4	-	6	5	6	-	43 50	34-17	8-14	-	-	-	-	-
Wakefield, . . .	52	5	60	18	22	105 00	47 75	363-12	9-6	1	7	309	9-16	1,950 00
Waltham, . . .	83	9	82	37	39	140 00	59 66	601-12	9-5	1	12	307	9-8	2,000 00
Watertown, . . .	35	3	32	11	13	145 00	56 25	261-9	9-6	1	5	107	9-14	2,050 00
Wayland, . . .	15	1	21	7	8	72 00	42 66	113-16	8-15	1	3	41	9-13	800 00
Westford, . . .	16	1	16	5	5	37 00	37 00	139-14	8-14	1†	2	42	9-15	1,700 00
Weston, . . .	9	1	8	4	4	178 94	44 77	66-10	9-10	1	3	44	9-10	1,700 00
Wilmington, . . .	46	1	8	3	3	85 00	42 00	83	9-4	1	1	34	10	850 00
Winchester, . . .	4	1	50	14	18	113 85	49 64	291-8	9-2	1	8	309	9-8	2,000 00
Woburn, . . .	66	5	65	7	9	120 00	52 62	570	10	1	9	294	10	1,900 00
Totals, . . .	2,572	226	2,606	972	1,179	\$142 13	\$57 01	20,078-10	9-9	49	354	9,785	9-12	\$77,988 20

† Westford Academy.

† United with Savin Academy.

\* Howe Incorporated Academy.

## MIDDLESEX COUNTY — CONTINUED.

EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.									
TOWNS AND CITIES.	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.	School sundries.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such contributions from other sources than local taxation.
Acton, . . . . .	\$4,668 00	\$845 40	\$865 68	\$91 75	\$450 00	\$483 21	\$128 11	\$7,532 15	\$6,787 77
Arlington, . . . . .	27,215 34	-	6,704 90	50 00	-	2,651 23	518 70	37,140 17	37,140 17
Asbury, . . . . .	1,603 00	594 00	185 45	3 60	600 00	269 11	15 00	3,270 16	2,816 66
Ashtand, . . . . .	4,501 25	936 00	941 45	73 50	600 00	553 36	187 50	7,793 06	6,998 68
Ayer, . . . . .	5,578 00	-	1,068 23	-	640 00	667 12	161 11	8,114 46	7,320 08
Bedford, . . . . .	2,650 50	883 60	916 86	29 30	150 00	174 23	34 63	4,839 12	4,458 61
Belmont, . . . . .	13,739 68	60 00	2,170 30	-	1,500 00	1,271 67	470 67	19,212 82	19,138 32
Billerica, . . . . .	6,475 24	284 60	978 71	276 00	705 00	660 36	298 77	9,678 68	8,798 17
Boxborough, . . . . .	1,706 00	-	92 00	25 50	50 00	75 00	44 38	1,967 38	1,566 54
Burlington, . . . . .	1,067 75	238 00	322 62	75 00	45 00	54 87	12 80	1,766 54	855 00
Cambridge, . . . . .	299,130 87	-	48,118 64	7,609 00	4,280 00	20,697 21	3,655 81	383,491 53	377,819 38
Carlisle, . . . . .	1,074 00	504 00	82 00	6 00	375 00	62 00	4 00	2,107 00	1,180 97
Chelmsford, . . . . .	7,761 38	1,077 80	1,320 79	190 92	900 00	885 82	748 40	12,885 11	11,890 73
Concord, . . . . .	17,361 93	2,315 00	2,653 72	85 25	500 00	1,758 49	1,889 67	26,564 06	23,725 35
Dracut, . . . . .	7,885 98	393 40	1,284 22	69 05	720 00	655 56	193 27	11,201 48	10,271 12
Dunstable, . . . . .	720 00	795 00	226 04	16 00	225 00	78 06	18 40	2,078 50	1,276 00
Everett, . . . . .	71,628 75	-	13,927 20	670 00	2,500 00	6,587 26	3,056 85	98,320 06	98,320 06
Frammingham, . . . . .	31,973 00	2,786 50	5,821 42	47 20	2,000 00	3,499 62	1,515 58	47,567 78	47,567 78
Groton, . . . . .	6,918 76	199 75	1,034 96	271 65	675 00	847 84	85 78	10,053 74	10,053 74
Holliston, . . . . .	6,504 10	1,141 40	1,502 67	85 00	581 56	834 85	157 66	10,807 24	9,700 11
Hopkinton, . . . . .	7,140 00	834 50	1,607 63	10 00	900 00	435 57	247 61	11,175 41	9,780 87
Hudson, . . . . .	12,484 82	669 00	2,556 45	164 25	1,347 34	2,197 77	177 12	19,596 75	18,911 10
Lexington, . . . . .	11,811 53	2,402 75	2,561 03	361 17	300 00	1,063 66	454 38	18,944 52	18,944 52
Lincoln, . . . . .	3,154 11	1,107 85	501 42	-	150 00	178 44	99 84	5,281 66	4,981 76
Littleton, . . . . .	3,475 42	678 25	711 18	-	306 00	315 06	386 41	6,124 32	5,205 14
Lowell, . . . . .	210,470 75	102 00	45,139 97	4,260 85	3,000 00	14,170 69	24,652 97	301,797 23	301,797 23

## SCHOOL RETURNS.

xliii

Malden,	117,655 00	-	17,911 00	1,712 00	2,500 00	6,985 00	12,473 00	159,236 00	-	274 03	159,236 00
Marlborough,	39,297 10	780 54	6,813 24	683 36	2,090 00	3,577 84	1,118 33	54,360 41	274 03	54,086 38	
Maynard,	7,059 10	-	1,365 25	-	-	661 00	182 69	9,268 04	205 52	9,062 52	
Medford,	66,621 83	500 00	13,473 24	930 00	2,500 00	5,892 50	3,547 06	93,464 63	977 79	92,486 84	
Melrose,	47,969 72	100 00	9,979 54	301 65	2,011 69	5,775 21	3,631 02	69,698 83	-	69,698 83	
Nettuck,	25,794 77	-	3,939 41	-	1,642 50	1,907 92	1,205 85	34,490 45	-	34,490 45	
Newton,	136,170 47	315 18	20,877 25	1,653 30	3,800 00	9,301 02	4,723 23	176,840 45	-	176,840 45	
North Reading,	1,837 70	894 00	268 71	73 00	180 00	253 58	5 00	3,511 99	619 38	2,892 61	
Pepperell,	9,019 97	540 85	2,224 42	30 00	400 00	1,152 90	461 34	13,829 48	309 18	13,520 30	
Reading,	14,158 75	128 00	3,070 68	-	1,087 50	1,247 37	1,229 98	20,922 28	-	20,922 28	
Sherborn,	1,651 80	1,103 75	404 50	70 00	283 05	236 64	46 57	3,796 31	633 38	3,162 93	
Shirley,	2,372 80	269 00	515 71	133 75	437 14	357 42	13 57	4,099 39	1,179 16	2,920 23	
Somerville,	192,959 90	-	31,123 81	1,700 00	3,000 00	14,705 40	1,425 80	244,914 91	-	244,914 91	
Stonham,	15,484 90	-	2,491 16	125 00	1,000 00	1,310 53	717 46	21,129 05	-	21,129 05	
Stow,	2,472 00	-	362 00	-	100 00	282 81	25 00	3,241 81	1,196 99	2,044 82	
Sudbury,	3,440 00	1,731 00	642 56	128 53	450 00	378 04	114 92	6,885 05	780 22	6,104 83	
Tewksbury,	5,777 89	594 00	1,266 39	154 00	720 00	574 33	151 63	9,238 24	955 39	8,282 85	
Townsend,	4,063 12	524 50	493 09	3 50	900 00	386 63	130 78	6,501 62	1,225 38	5,276 24	
Tyngsborough,	2,105 98	957 00	366 75	-	180 00	178 78	36 24	3,824 75	1,251 06	2,573 69	
Wakefield,	27,119 28	-	4,143 72	-	1,500 00	2,283 50	1,681 36	36,727 86	-	36,727 86	
Waltham,	57,332 60	1,029 45	10,169 08	819 00	1,900 00	4,184 85	1,270 82	76,705 80	-	76,705 80	
Watertown,	25,545 50	1,577 85	4,382 28	400 00	1,500 00	2,196 62	-	35,602 25	-	35,602 25	
Wayland,	6,445 25	1,693 00	1,545 98	125 00	750 00	734 05	25 65	11,318 93	1,088 03	10,230 90	
Westford,	6,655 95	252 50	838 87	6 00	783 35	736 55	45 00	9,318 22	1,234 18	8,084 04	
Weston,	6,350 00	2,715 00	1,193 21	450 00	-	655 09	-	11,363 30	-	11,363 30	
Wilmington,	4,083 25	-	999 50	150 00	-	646 80	191 99	6,071 54	291 43	5,780 11	
Winchester,	22,458 29	786 00	4,269 32	113 80	1,260 00	3,296 18	1,040 91	33,224 50	-	33,224 50	
Woburn,	40,699 67	130 00	6,289 16	400 00	2,000 00	3,963 01	535 03	54,016 87	-	54,016 87	
Totals,	\$1,661,484 75	\$35,470 42	\$294,825 37	\$24,557 88	\$56,505 13	\$134,929 73	\$75,215 65	\$2,282,988 93	\$31,801 23	\$2,248,187 70	





## SCHOOL RETURNS.

xlv

Malden, . . . . .	20,363 00	2,211 00	6,424 00	29,598 00	-	23,598 00	188,834 00	-	1	-	5	1,250
Marlborough, . . . . .	-	-	2,543 46	2,543 46	-	2,543 46	56,629 84	225	-	-	1	400
Maynard, . . . . .	-	-	-	-	-	-	9,062 52	-	-	-	-	-
Medford, . . . . .	52,900 00	1,177 63	2,260 35	56,337 98	-	56,337 98	148,824 82	-	-	-	1	4
Melrose, . . . . .	-	-	2,884 50	2,884 50	-	2,884 50	72,583 33	-	-	-	1	18
Melrose, . . . . .	-	1,277 93	1,282 59	2,560 52	-	2,560 52	37,050 97	-	-	-	1	40
Nauck, . . . . .	-	15,000 00	8,107 16	23,107 16	-	23,107 16	199,947 61	264	3	-	9	222
Newton, . . . . .	-	96 67	55 00	151 67	-	151 67	3,044 28	-	-	-	-	-
North Reading, . . . . .	-	443 95	340 68	784 63	-	784 63	14,301 93	-	-	-	-	-
Pepperell, . . . . .	-	-	710 62	710 62	-	710 62	21,632 90	-	-	-	-	-
Reading, . . . . .	-	-	92 34	92 34	-	92 34	3,255 27	27	1	-	-	-
Sherborn, . . . . .	-	-	444 54	444 54	-	444 54	3,364 77	-	-	-	-	-
Shirley, . . . . .	-	-	-	-	-	-	333,067 97	-	-	-	2	1,507
Somerville, . . . . .	66,052 46	6,463 65	15,636 95	88,153 06	-	88,153 06	34,177 93	-	-	-	-	-
Stonham, . . . . .	-	12,481 54	567 34	13,048 88	-	13,048 88	2,076 24	-	-	-	-	-
Stow, . . . . .	-	-	45 00	45 00	-	31 42	6,444 10	-	-	-	-	-
Sudbury, . . . . .	-	199 66	139 61	339 27	-	339 27	8,631 05	-	-	-	-	-
Tewksbury, . . . . .	-	-	348 20	348 20	-	348 20	5,506 59	-	-	-	-	-
Townsend, . . . . .	-	-	230 35	230 35	-	230 35	2,716 37	-	-	-	-	-
Tyngsborough, . . . . .	-	141 18	1,281 84	1,422 68	-	1,422 68	38,527 70	-	-	-	-	-
Wakefield, . . . . .	-	518 00	3,424 24	14,524 12	-	14,524 12	91,229 92	43	4	-	4	1,191
Waltham, . . . . .	-	11,099 88	5,181 41	5,181 41	-	5,181 41	40,783 66	-	-	-	1	485
Waretown, . . . . .	-	-	75 92	1,225 92	-	1,225 92	11,356 82	-	-	-	-	-
Wayland, . . . . .	-	-	212 55	212 55	-	212 55	8,296 59	-	-	-	-	-
Westford, . . . . .	-	-	759 24	759 24	-	759 24	12,122 54	42	1	-	-	-
Weston, . . . . .	-	78 85	32 40	824 91	-	824 91	6,605 02	-	-	-	-	-
Wilmington, . . . . .	-	-	1,896 88	1,898 10	-	1,898 10	35,122 60	-	-	-	2	35
Winchester, . . . . .	-	-	1,869 79	6,388 56	-	6,388 56	60,405 43	-	-	-	-	-
Woburn, . . . . .	-	4,528 77	-	-	-	-	-	478	1	-	1	347
Totals, . . . . .	\$401,088 08	\$122,226 12	\$100,930 51	\$624,244 71	\$2,113 58	\$622,131 13	\$2,870,318 83	2,057	12	70	13,809	

## NANTUCKET COUNTY.

TOWNS AND CITIES.	Population — State Census of 1895.	Valuation — May 1, 1899.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1899.				SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.						
				No. of persons in town between 5 and 15 years of age.	No. of persons in town between 7 and 14 years of age.	No. of different pupils within the year.	No. of different pupils under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average member-ship.		
Nantucket, . . .	3,016	\$3,344,038	11	329	249	409	10	70	240	351	313	.89		

## NORFOLK COUNTY.

TOWNS AND CITIES.	Population — State Census of 1895.	Valuation — May 1, 1899.	No. of public schools.	No. of persons in town between 5 and 15 years of age.	No. of persons in town between 7 and 14 years of age.	No. of different pupils within the year.	No. of different pupils under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average member-ship.		
Avon, . . .	1,626	\$821,255	7	269	197	313	-	27	197	289	263	.91		
Bellingham, . . .	1,481	745,910	8	298	225	306	-	14	216	258	235	.91		
Brintree, . . .	5,311	4,496,450	28	987	696	1,257	92	56	809	1,080	990	.91		
Brookline, . . .	16,164	74,530,000	81	2,934	2,014	3,617	277	468	2,045	3,151	2,859	.92		
Canton, . . .	4,636	3,996,370	18	833	575	638	4	67	407	571	526	.92		
Cohasset, . . .	2,474	4,888,044	11	401	292	509	-	54	318	401	360	.90		
Dedham, . . .	6,188	8,428,078	37	1,299	843	1,497	7	199	931	1,275	1,188	.93		
Dover, . . .	668	844,060	5	126	88	121	-	2	83	91	78	.86		
Foxborough, . . .	3,219	2,008,500	15	532	337	650	7	56	465	545	510	.93		
Franklin, . . .	5,136	3,223,145	13	763	533	833	-	147	562	597	650	.92		
Holbrook, . . .	2,298	1,210,522	12	409	299	514	6	37	305	425	394	.92		
Hyde Park, . . .	11,826	10,281,885	45	2,126	1,539	1,875	12	243	1,171	1,577	1,460	.92		
Medfield, . . .	1,872	1,374,172	8	228	168	283	6	29	168	242	224	.92		
Medway, . . .	2,913	1,377,100	16	448	322	634	18	50	359	496	470	.95		
Millis, . . .	1,006	723,390	5	231	185	252	-	26	194	213	186	.88		
Milton, . . .	5,518	20,683,586	40	1,110	776	1,440	147	139	858	1,162	1,076	.92		
Needham, . . .	3,511	3,435,790	21	605	432	856	6	97	481	678	623	.91		
Norfolk, . . .	882	533,722	5	131	103	192	1	16	84	135	121	.91		

## SCHOOL RETURNS.

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Norwood,	.	.	.	4,574	4,202,327	24	1,045	742	1,122	-	23	725	1,060	989	.93
Quincy,	.	.	.	20,712	19,634,319	108	4,999	3,969	5,024	28	308	3,112	4,405	4,138	.93
Randolph,	.	.	.	3,694	1,890,850	16	624	467	716	1	92	467	648	597	.92
Sharon,	.	.	.	1,717	1,835,162	9	287	201	348	1	30	201	259	231	.89
Stoughton,	.	.	.	5,272	2,952,375	18	923	642	895	-	70	527	705	654	.92
Walpole,	.	.	.	2,994	2,542,062	17	555	368	687	17	78	438	570	518	.90
Wellesley,	.	.	.	4,229	8,732,625	21	671	383	755	1	117	472	612	583	.95
Westwood,	.	.	.	1,023	1,116,175	6	187	135	205	1	4	123	157	144	.91
Weymouth,	.	.	.	11,291	6,565,322	48	1,947	1,372	2,432	-	154	1,266	2,057	1,934	.94
Wrentham,	.	.	.	2,584	1,493,056	16	451	318	554	7	82	318	445	406	.91
Totals,	.	.	.	134,819	\$194,618,252	658	25,419	18,251	28,525	638	2,685	17,302	24,104	22,307	.93

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Ave No. of months kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Nantucket, . .	13	1	12	2	3	\$120 00	\$33 25	103	9	1	3	99	10	\$1,200 00

NORFOLK COUNTY — CONTINUED.

Avon, . . . . .	8	1	11	4	5	\$97 62	\$37 80	63-5	9-5	1	2	54	9-5	\$903 75
Bellingham, . . . . .	8	1	9	—	3	—	38 75	70	8-15	—	—	—	—	—
Brantree, . . . . .	36	2	35	21	21	96 00	48 79	267-17	9-11	1	4	104	9-8	1,200 00
Brookline, . . . . .	121	9	112	42	49	158 89	70 04	808-18	9-18	1	18	365	9-18	3,500 00
Canton, . . . . .	21	2	20	5	6	115 00	48 57	180	10	1	3	84	10	1,500 00
Cohasset, . . . . .	14	2	11	3	5	115 00	45 34	110	10	1	3	85	10	1,700 00
Dedham, . . . . .	40	7	38	20	21	128 75	57 58	307-11	9-6	1	6	179	9-8	2,000 00
Dover, . . . . .	5	—	7	1	2	—	38 84	40-3	8	1	1	10	9-3	418 00
Foxborough, . . . . .	18	2	17	9	12	101 47	44 36	134-15	8-19	1	3	63	9-10	1,320 00
Franklin, . . . . .	19	4	18	7	9	55 56	42 20	114-15	8-15	1	7	201	9-9	800 00
Hobbrook, . . . . .	13	1	15	4	9	120 00	38 30	109-10	9-10	1	2	73	9-15	1,200 00
Hyde Park, . . . . .	51	9	55	11	13	123 75	49 52	450	10	1	8	201	10	2,000 00
Medfield, . . . . .	8	1	10	6	8	111 11	47 22	72	9	1	1	27	9	1,000 00
Medway, . . . . .	17	3	21	8	8	40 00	34 00	145	9-1	1	2	69	10	1,000 00
Millic, . . . . .	6	1	6	5	6	89 01	35 62	42-9	8-10	1	2	13	9-2	800 00
Milton, . . . . .	53	4	49	25	29	155 00	65 18	384	9-12	1	8	171	9-12	2,100 00
Needham, . . . . .	22	3	27	7	9	105 29	47 17	201	9-11	1	3	120	10	1,362 50
Norfolk, . . . . .	5	2	4	—	—	40 00	41 00	44-5	8-18	1	1	15	8-17	500 00

## SCHOOL RETURNS.

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Norwood,	.	27	2	25	15	19	92 50	51 50	234	9-15	1	4	67	9-15	1,250 00
Quincy,	.	119	13	118	38	42	128 20	49 33	1,053	9-15	1	12	427	9-15	2,140 00
Randolph,	.	18	3	15	3	3	119 29	43 79	152	9-5	1	3	107	9-5	1,400 00
Sharon,	.	9	1	12	3	6	80 00	38 05	79-15	9-15	1	1	40	9-12	800 00
Stoughton,	.	26	1	25	7	7	150 00	43 00	163	9	1	3	69	10	1,500 00
Walpole,	.	20	1	28	8	13	130 00	43 36	170	10	1	4	100	10	1,300 00
Wellesley,	.	24	1	23	13	13	200 00	53 87	180-15	9-1	1	3	85	10	2,000 00
Westwood,	.	6	-	6	4	4	-	53 33	60	10	-	-	-	-	-
Weymouth,	.	53	13	48	12	12	78 75	49 50	472-8	9-16	1	8	268	9-16	1,400 00
Wrentham,	.	19	3	26	4	9	78 33	37 64	152	9-10	2	4	116	{ 9-10	800 00
Totals,	.	786	91	791	285	338	\$111 03	\$51 21	6,262-6	9-10	27	116	3,113	9-12	\$36,644 25

## BOARD OF EDUCATION.

## NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.		
Nantucket, . . .	\$5,380 00	-	\$588 48	\$100 00	-	\$671 30	\$244 59	\$6,984 37	\$6,984 37

## NORFOLK COUNTY — CONTINUED.

Avon, . . .	\$3,290 75	-	\$766 35	\$114 07	\$36 01	\$270 12	\$82 43	\$4,559 73	\$4,165 29
Bellingham, . . .	3,072 10	\$482 00	385 71	15 00	550 00	365 87	99 66	4,970 34	4,094 49
Brantree, . . .	16,593 13	821 34	2,930 82	52 75	1,400 04	1,730 60	532 84	24,091 52	23,617 52
Brookline, . . .	94,181 08	854 00	16,620 30	2,535 62	4,000 00	5,979 76	5,943 62	130,115 38	130,115 38
Canton, . . .	12,180 00	604 00	1,993 56	35 25	1,000 00	1,439 68	-	17,252 49	16,952 49
Cohasset, . . .	8,196 00	2,141 13	1,407 04	-	600 00	521 44	253 00	13,118 61	13,078 21
Dedham, . . .	27,308 27	41 00	5,201 27	125 00	2,100 00	2,148 11	1,801 14	38,724 79	38,724 79
Dover, . . .	2,028 60	406 00	330 42	41 83	300 00	144 80	19 07	3,270 72	2,626 34
Foxborough, . . .	8,311 88	-	1,226 16	179 50	1,008 33	706 92	453 26	11,886 05	11,382 05
Franklin, . . .	8,386 35	-	2,095 87	64 04	1,000 00	827 59	324 55	14,285 85	13,811 92
Holbrook, . . .	5,794 88	1,537 45	1,256 88	140 00	-	524 77	325 15	8,041 68	7,650 03
Hyde Park, . . .	32,364 08	-	6,475 93	450 00	2,500 00	2,708 84	2,186 68	45,745 53	45,745 53
Medfield, . . .	4,093 43	9 23	892 15	85 00	600 00	342 27	147 40	6,169 48	915 54
Medway, . . .	6,003 95	231 83	947 98	154 50	743 73	918 90	256 98	9,237 87	8,253 94
Millis, . . .	2,392 40	385 00	482 40	65 00	100 00	236 16	43 44	3,704 40	3,348 88
Milton, . . .	37,008 72	2,952 75	6,935 84	-	2,531 25	3,575 25	1,789 99	54,793 80	54,793 80
Needham, . . .	11,089 79	-	3,428 72	13 95	800 00	1,249 18	319 04	16,990 68	16,990 68
Norfolk, . . .	1,992 00	737 09	455 87	114 00	-	258 85	60 00	3,617 81	3,223 43

## SCHOOL RETURNS.

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Norwood, . . .	13,277 57	300 00	3,574 53	-	1,400 00	1,658 37	100 00	20,310 47	-	20,310 47
Quincy, . . .	74,007 61	879 30	11,472 97	575 00	2,500 00	6,763 29	2,370 52	98,568 69	39 97	98,528 72
Randolph, . .	9,423 84	205 50	1,151 52	278 58	-	472 34	251 68	11,783 46	1,373 84	10,409 62
Sharon, . . .	4,603 00	-	1,012 71	37 00	180 00	415 81	102 03	6,350 55	491 60	5,858 95
Stoughton, . .	10,545 21	-	1,987 46	351 10	410 00	1,150 64	1,032 57	15,496 98	891 05	14,605 93
Walpole, . . .	9,464 87	1,127 00	2,555 89	-	900 00	742 27	286 50	15,056 53	981 05	14,075 48
Wellesley, . .	16,821 47	-	4,692 59	5 00	1,500 00	2,640 64	1,563 87	26,223 57	111 00	26,112 57
Westwood, . .	4,088 92	667 50	490 87	102 00	50 00	350 28	192 62	5,942 19	551 83	5,390 36
Weymouth, . .	31,609 83	1,500 00	5,570 40	59 50	1,400 00	3,128 73	1,079 81	44,348 27	-	44,348 27
Wrentham, . .	8,748 00	456 00	1,872 94	157 50	900 00	616 57	349 16	13,100 17	1,197 26	11,902 91
Totals, . . .	\$465,877 73	\$16,338 12	\$87,215 15	\$5,752 19	\$28,509 36	\$41,948 05	\$21,967 01	\$667,597 61	\$12,173 87	\$655,423 74

BOARD OF EDUCATION.

## NANTUCKET COUNTY — CONCLUDED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			ACADEMIES AND PRIVATE SCHOOLS.		
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.
Nantucket.	-	\$2,351 74	\$232 67	\$2,584 41	\$2,584 41	\$9,568 78

NORFOLK COUNTY — CONCLUDED.

Avon.	.	-		\$55 68	\$55 68			\$4,220 97	-	-	-	-	-
Bellingham,	.	\$500 00	\$197 72	145 22	842 94			4,937 43	-	-	-	-	-
Braintree,	.	7,433 75	1,165 28	4,451 70	13,050 73			36,668 25	116	1	1	1	9
Brookline,	.	83,221 21	2,703 29	2,517 27	88,441 77			218,557 15	-	-	-	-	318
Canton,	.		-	564 40	564 40			17,516 89	-	-	-	-	298
Cobasset,	.		-	483 73	483 73			13,561 94	-	-	-	-	-
Dedham,	.		-	1,840 24	1,840 24			40,565 03	-	-	-	-	-
Dover,	.		73 12	184 96	258 08			2,884 42	-	-	-	-	-
Foxborough,	.		-	189 25	189 25			11,571 30	-	-	-	-	-
Franklin,	.		-	591 32	591 32			14,403 24	124	1	1	1	275
Holbrook,	.		-	90 31	90 31			7,740 34	-	-	-	-	-
Hyde Park,	.		18 00	1,501 17	1,519 17			47,264 70	-	-	-	-	708
Medfield,	.		90 97	20 00	110 97			5,364 91	-	-	-	-	-
Medway,	.		433 21	172 19	605 40			9,001 09	-	-	-	-	-
Millis,	.		182 39	25 29	207 68			3,556 56	-	-	-	-	-
Milton,	.		1,183 17	950 66	23,555 67			78,349 47	117	3	3	3	126
Needham,	.		138 50	254 71	693 61			17,594 29	-	-	-	-	-
Norfolk,	.		428 00	-	428 00			3,651 43	-	-	-	-	-



## SCHOOL RETURNS.

lii

Norwood,	.	20,000 00	1,500 00	1,682 30	23,182 30	-	23,182 30	43,492 77	-	-	2	25
Quincy, .	.	-	60 38	1,772 63	1,833 01	-	1,833 01	100,361 73	-	-	4	200
Randolph,	.	-	-	365 47	365 47	-	365 47	10,775 09	-	-	-	-
Sharon, .	.	8,575 95	-	572 19	9,148 14	-	9,148 14	15,007 09	-	-	-	-
Sloughdon,	.	-	-	829 06	829 06	-	829 06	15,434 99	-	-	1	249
Walpole,	.	292 70	700 00	57 36	1,050 06	-	1,050 06	15,125 54	-	-	-	-
Wellesley,	.	-	1,196 78	821 05	2,017 83	-	2,017 83	28,130 40	49	-	2	138
Westwood,	.	-	127 35	230 56	357 91	-	357 91	5,748 27	-	-	-	-
Weymouth,	.	-	-	3,613 38	3,613 38	-	3,613 38	47,961 65	-	-	-	-
Wrentham,	.	-	-	614 87	614 87	-	614 87	12,517 78	-	-	-	-
Totals,	.	\$141,705 85	\$10,198 16	\$24,636 97	\$176,540 98	-	\$176,540 98	\$831,964 72	4	406	24	2,346

## BOARD OF EDUCATION.

## PLYMOUTH COUNTY.

TOWNS AND CITIES.	Population—State Census of 1895.	Valuation—May 1, 1899.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1899.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.						
				No. of persons in town between 5 and 15 years of age.	No. of persons in town and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year.	No. of different pupils within 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.
Abington,	4,207	\$2,316,341	18	671	373	828	15	85	569	702	655	.93
Bridgewater,	4,686	2,501,849	21	673	509	849	52	80	552	720	662	.91
Brockton,	33,165	27,327,746	156	6,700	4,601	7,036	1	862	4,601	6,069	5,668	.93
Carver,	1,016	876,160	7	170	109	145	1	27	108	138	143	.90
Duxbury,	1,966	1,619,828	10	267	182	308	4	35	186	239	214	.89
East Bridgewater,	2,894	1,428,044	14	498	357	555	8	40	422	466	466	.94
Hanfax,	497	268,148	3	81	56	92	1	10	56	63	55	.87
Hanover,	2,051	1,209,197	9	292	220	341	4	36	221	302	277	.91
Hanson,	1,380	682,598	8	205	145	230	6	5	145	190	169	.89
Hingham,	4,819	4,070,240	18	723	500	870	1	147	739	772	718	.93
Hull,	1,044	4,018,454	4	162	125	159	2	5	124	140	130	.92
Kingston,	1,746	1,382,130	9	333	234	400	11	25	283	329	303	.92
Lakeville,	870	436,832	6	136	93	132	1	2	92	115	89	.77
Marion,	759	1,052,270	6	128	102	132	1	4	102	120	113	.94
Marshfield,	1,760	1,281,110	11	263	219	327	2	33	258	259	232	.87
Mattapoisett,	1,032	1,516,891	6	140	117	163	2	24	94	137	125	.96
Middleborough,	6,689	3,985,630	33	1,043	886	1,179	1	110	797	1,045	959	.91
Norwell,	1,640	853,814	9	245	161	277	4	18	161	239	213	.88
Pembroke,	1,223	631,275	7	191	142	192	1	17	133	167	151	.90
Plymouth,	7,957	7,015,030	39	1,471	1,048	1,758	8	152	1,023	1,452	1,358	.93
Plympton,	549	314,032	3	54	45	68	3	6	42	49	43	.88
Rochester,	1,021	485,609	6	164	121	201	2	20	166	132	108	.82
Rockland,	5,523	3,053,281	24	964	705	1,157	21	145	703	1,062	974	.91
Scituate,	2,246	2,554,295	11	360	254	374	2	49	250	347	317	.91
Wareham,	3,367	2,348,013	22	594	455	627	6	59	455	544	507	.93

## SCHOOL RETURNS.

lv

West Bridgewater,	1,747	1,217,170	9	291	207	292	2	8	193	257	237	.92
Whitman, . . .	5,744	3,656,396	21	1,080	740	1,282	5	128	892	1,078	1,004	.93
Totals, . . .	101,498	\$78,212,386	490	17,899	12,706	20,034	159	2,132	13,367	17,181	15,890	.92

## SUFFOLK COUNTY.

Boston, . . .	496,020	\$1,080,736,252	1,591	86,505	58,967	87,904	2,185	8,230	49,071	77,008	68,594	.89
Chelsea, . . .	31,264	23,405,294	99	5,591	3,912	5,863	-	600	3,629	5,057	4,716	.93
Revere, . . .	7,423	10,447,680	49	1,869	1,375	2,263	136	48	1,423	1,954	1,858	.95
Winthrop, . . .	4,192	6,676,455	23	844	563	1,147	-	125	688	963	893	.93
Totals, . . .	539,799	\$1,130,265,681	1,762	94,809	64,817	97,177	2,321	9,003	54,811	84,982	76,061	.90

## BOARD OF EDUCATION.

## PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Abington, . . . . .	23	2	22	15	17	\$110 00	\$49 57	125-8	9-6	1	4	108	9-9	\$1,400 00
Bridgewater, . . . . .	27	2	27	25	25	150 00	63 62	197-5	8-19	1	5	38	9-16	1,500 00
Brockton, . . . . .	160	14	173	73	98	145 83	56 78	1,560	10	1	19	629	10	2,000 00
Carver, . . . . .	7	3	7	2	2	45 33	33 14	62	8-17	1	1	27	8-14	540 00
Duxbury, . . . . .	11	2	12	2	3	70 00	36 44	87-15	8-15	1*	2	49	10	800 00
East Bridgewater, . . . . .	16	1	16	5	7	110 00	42 33	109-19	8-9	1	2	45	9-10	1,100 00
Halifax, . . . . .	3	1	4	1	1	50 00	34 00	25-1	8-7	1	1	—	—	—
Hanover, . . . . .	11	2	20	3	3	83 00	36 35	86-8	9-11	1	2	50	9-17	830 00
Hanson, . . . . .	8	—	11	3	3	—	37 00	69	8-13	1	—	—	—	—
Hingham, . . . . .	22	4	28	15	17	120 00	45 37	180	10	1	5	142	10	1,600 00
Hull, . . . . .	4	2	2	2	3	75 00	44 00	40	10	1	—	—	—	—
Kingston, . . . . .	12	1	15	5	9	100 00	40 46	84	9-6	1	2	62	10	1,000 00
Lakeville, . . . . .	6	—	7	5	—	—	31 96	54	9	1	—	—	—	—
Marion, . . . . .	6	—	6	1	1	—	36 00	54	9	1	—	—	—	—
Marshfield, . . . . .	12	2	14	3	3	75 44	37 92	99	9	1	2	45	9	800 00
Mattapoisett, . . . . .	6	1	5	2	3	70 00	38 80	57-5	9-11	1	1	38	10	743 16
Middleborough, . . . . .	33	2	35	6	14	136 58	40 98	254-7	8-19	1	4	126	9-10	1,700 00
Norwell, . . . . .	10	—	11	—	3	94 72	34 52	85-10	9-10	1	2	41	9-10	900 00
Pembroke, . . . . .	7	1	6	1	1	50 00	34 00	60-6	8-12	1	1	27	8-5	437 50
Plymouth, . . . . .	45	4	57	13	18	100 00	43 78	376-7	9-13	1	1	173	9-16	1,500 00
Plympton, . . . . .	3	1	3	—	—	46 66	31 00	26-15	8-18	—	—	—	—	—
Rochester, . . . . .	6	1	9	2	5	36 00	35 10	52-7	8-14	1	4	151	9-6	1,400 00
Rockland, . . . . .	29	4	33	10	10	88 53	45 37	227-14	9-15	1	2	63	10	1,000 00
Scituate, . . . . .	13	1	14	2	3	100 00	38 88	100	8-10	1	—	—	—	—
Wareham, . . . . .	22	2	22	2	4	75 00	31 45	159-10	8-10	1	2	73	9-10	1,000 00

West Bridgewater, .	10	-	13	7	7	-	46 15	75-2	8-7	1+	8	12	8-5	700 00
Whitman, .	29	2	32	13	14	108 88	43 36	205-9	9-10	1	4	101	9-13	1,300 00
Totals, . . .	541	56	604	214	274	\$104 23	\$46 39	4,514-8	9-4	20	73	2,050	9-10	\$22,250 66

## SUFFOLK COUNTY — CONTINUED.

Boston, .	1,822	242	1,601	1,187	1,250	\$212 41	\$71 42	16,307	10-5	12	203	6,271	118-16	\$42,000 00
Chelsea, .	123	7	118	42	46	183 33	65 45	941	9-12	1	17	441	10	2,500 00
Revere, .	53	4	51	32	37	110 00	51 00	458-12	9-12	-	-	-	-	-
Winthrop, .	27	2	25	15	16	151 28	56 62	213-10	9-10	1	4	101	9-10	1,450 00
Totals, . . .	2,025	255	1,795	1,276	1,349	\$209 52	\$70 24	17,920-2	10-3	14	224	6,813	9-17	\$45,950 00

\* Partridge Academy.

† Howard Seminary.

## PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.						Total expenditure for the support of public schools, being the total of seven preceding columns.	Amount expended in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.			
Ablington, . . .	\$13,132 00	\$455 00	\$1,879 78	\$328 80	\$1,000 00	\$1,102 35	\$18,451 58	\$972 04	\$17,479 54
Bridgewater, . . .	12,788 75	779 02	484 53	-	1,000 00	723 71	16,071 76	1,332 36	14,739 40
Brockton, . . .	105,391 54	50 00	18,212 80	933 05	3,810 00	6,311 34	139,049 68	-	139,049 68
Carver, . . .	2,397 00	766 00	240 66	133 07	-	356 03	3,911 76	305 00	3,606 76
Duxbury, . . .	3,833 03	-	272 73	123 72	500 00	453 49	5,912 52	646 29	5,266 23
East Bridgewater, . . .	6,874 99	496 04	978 31	-	700 00	624 94	10,098 54	877 71	9,220 83
Halifax, . . .	984 85	338 12	60 52	53 95	-	63 27	1,518 11	515 51	1,002 60
Hanover, . . .	4,475 00	505 50	982 56	71 00	500 00	506 91	7,085 27	711 09	6,374 18
Hanson, . . .	2,996 00	158 50	163 30	128 75	500 00	339 42	4,369 13	811 09	3,558 04
Hingham, . . .	13,128 00	867 78	3,166 19	116 00	1,000 00	1,727 28	20,954 60	40 40	20,914 20
Hull, . . .	2,664 74	822 00	1,238 90	235 00	200 00	189 89	5,511 47	-	5,511 47
Kingston, . . .	4,839 00	319 00	751 80	-	250 00	474 81	6,833 46	359 23	6,474 23
Lakeville, . . .	2,033 00	273 90	112 47	90 00	-	123 36	2,649 73	815 55	1,834 18
Marion, . . .	2,252 00	-	431 25	62 35	-	282 00	3,036 60	229 59	2,807 01
Marshfield, . . .	4,453 50	1,271 80	505 17	144 01	500 00	500 77	7,440 25	733 29	6,706 96
Mattapoisett, . . .	2,711 00	426 50	861 20	183 94	300 00	148 30	4,717 25	964 73	3,752 52
Middleborough, . . .	13,953 70	1,755 02	2,314 01	90 00	1,700 00	1,430 00	21,783 48	-	21,783 48
Norwell, . . .	3,972 37	385 22	599 38	157 00	500 00	466 55	6,033 52	917 10	5,116 42
Pembroke, . . .	2,319 75	56 25	157 12	166 46	-	202 73	2,902 31	329 59	2,572 72
Plymouth, . . .	22,780 20	312 10	4,713 23	100 00	2,000 00	2,755 47	33,050 05	18 25	33,031 80
Plympton, . . .	966 28	-	60 00	55 00	-	-	1,296 28	577 52	718 76
Rochester, . . .	1,985 80	-	161 95	161 30	-	563 03	2,872 08	827 82	2,044 26
Rockland, . . .	13,913 43	-	2,306 25	510 25	400 00	1,299 17	19,151 54	46 32	19,105 22
Schuette, . . .	5,457 74	921 02	1,082 16	145 00	500 00	559 69	8,782 41	694 19	8,088 22
Wareham, . . .	6,271 49	-	1,209 68	352 00	-	968 57	9,125 17	205 52	8,919 65

## SUFFOLK COUNTY — CONTINUED.

West Bridgewater,	4,187 97	446 52	378 00	19 00	500 00	232 35	91 37	5,855 21	758 60	5,096 61
Whitman, . . .	14,359 75	-	3,483 69	286 50	1,000 00	1,397 98	581 30	21,109 22	-	21,109 22
Totals, . . .	\$275,122 93	\$11,405 29	\$46,737 64	\$4,646 15	\$16,890 00	\$24,511 41	\$10,259 56	\$389,572 98	\$13,088 79	\$375,884 19

Boston, . . .	\$2,067,264 53	\$2,112 08	\$249,703 51	\$42,065 33	\$26,880 00	\$80,556 62	\$66,223 23	\$2,535,205 30	\$4,458 34	\$2,530,746 96
Chelsea, . . .	86,933 79	165 00	11,608 62	1,933 33	2,433 33	6,739 39	5,448 23	115,261 69	6,175 00	109,086 69
Revere, . . .	33,994 25	-	4,528 36	136 50	2,000 00	4,815 29	2,661 07	48,133 47	-	48,133 47
Winthrop, . . .	17,519 49	-	3,036 55	194 25	-	2,277 71	1,209 41	24,237 41	-	24,237 41
Totals, . . .	\$2,205,712 06	\$2,277 08	\$268,875 04	\$14,329 41	\$31,313 33	\$94,789 01	\$75,541 94	\$2,722,837 87	\$10,633 34	\$2,712,204 53

## BOARD OF EDUCATION.

## PLYMOUTH COUNTY — CONCLUDED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	ACADEMIES AND PRIVATE SCHOOLS.			
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.				No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.
Abington, . . .	-	\$395 07	\$664 90	\$1,059 97	\$1,059 97	\$18,539 51	1	1	1	1
Bridgewater, . . .	-	500 00	778 40	1,278 40	1,278 40	16,017 80	4	4	4	744
Brockton, . . .	\$11,179 31	17,493 16	10,804 96	39,477 43	39,477 43	178,527 11	1	1	1	1
Carver, . . .	1,860 20	9 90	24 54	1,894 64	1,894 64	5,601 40	1	1	1	1
Duxbury, . . .	-	-	265 73	265 73	265 73	5,531 96	1	49	2	45
East Bridgewater, . . .	-	86 84	201 09	287 93	287 93	9,508 76	1	1	1	1
Halifax, . . .	-	-	9 58	9 58	9 58	1,012 18	1	1	1	1
Hanover, . . .	-	420 00	245 83	665 83	665 83	7,040 01	1	1	1	1
Hanson, . . .	-	66 60	130 35	196 95	196 95	3,754 99	1	1	1	1
Hingham, . . .	-	1,197 82	703 38	1,901 20	1,901 20	22,815 40	1	40	1	1
Hull, . . .	-	-	78 48	78 48	78 48	5,589 95	1	1	1	1
Kingston, . . .	2,293 20	-	226 63	2,519 83	2,519 83	8,994 06	1	1	1	1
Lakeville, . . .	-	-	79 26	79 26	79 26	1,913 44	1	1	1	1
Marion, . . .	-	-	106 55	106 55	106 55	2,913 56	1	1	1	1
Marshfield, . . .	-	-	346 43	346 43	346 43	7,053 39	1	1	1	1
Mattapoisett, . . .	-	276 48	18 56	295 04	295 04	4,047 56	1	13	1	1
Middleborough, . . .	5,747 32	1,434 47	665 87	7,847 66	7,847 66	29,631 14	1	1	1	1
Norwell, . . .	-	281 19	216 37	497 56	497 56	5,613 98	1	1	1	1
Pembroke, . . .	-	-	403 19	403 19	403 19	2,975 91	1	1	1	1
Plymouth, . . .	1,781 49	2,408 51	425 00	4,615 00	4,615 00	37,646 80	1	1	1	1
Plympton, . . .	-	-	10 00	10 00	10 00	728 76	1	1	1	1
Rochester, . . .	-	50 00	216 41	266 41	266 41	2,310 67	1	1	1	1
Rockland, . . .	-	-	720 87	720 87	720 87	19,826 09	1	1	1	1
Scituate, . . .	-	-	160 39	160 39	160 39	8,248 61	1	1	1	1
Wareham, . . .	-	-	466 82	466 82	466 82	9,386 47	1	1	1	1



# SCHOOL RETURNS.

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West Bridgewater, .	-	646 77	731 25	-	646 77	5,743 38	1	42	-	-
Whitman, .	-	-	-	-	731 25	21,840 47	-	-	-	-
Totals, . . .	\$22,861 52	\$25,266 81	\$18,700 84	-	\$66,829 17	\$442,713 36	4	144	6	789

## SUFFOLK COUNTY — CONCLUDED.

Boston, .	\$822,107 37	\$282,708 26	-	-	\$1,104,815 63	\$3,635,562 59	3	88	101	16,804
Chelsea, .	2,009 45	-	\$3,919 32	-	5,928 77	113,015 46	-	-	2	1,030
Revere, .	-	1,726 00	500 00	-	2,226 00	50,359 47	-	-	-	-
Winthrop, .	-	-	1,358 35	-	1,358 35	25,595 76	-	-	-	-
Totals, . . .	\$824,116 82	\$284,434 26	\$5,777 67	-	\$1,114,328 75	\$3,826,533 28	3	88	103	17,834

WORCESTER COUNTY.

TOWNS AND CITIES.	Population — State Census of 1895.	Valuation — May 1, 1899.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1898.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.							Average attendance of all the schools.	Percentage of at- tendance based on average member- ship.
				No. of persons in town between 5 and 15 years of age.	No. of persons in town between 7 and 14 years of age.	No. of different pu- pils within the year.	No. of different pu- pils within the year under 5 years of age.	No. of different pu- pils within the year over 15 years of age.	No. of different pu- pils within the year between 7 and 14 years of age.	Average member- ship of all the schools.				
Ashburnham,	2,148	\$973,010	13	314	232	418	2	43	232	354	332	.93		
Athol,	7,364	4,211,935	23	1,042	739	1,093	1	131	751	938	895	.95		
Auburn,	1,598	577,110	9	352	246	334	1	11	247	259	230	.89		
Barre,	2,278	1,472,430	12	316	223	348	2	46	229	276	259	.93		
Berlin,	897	496,100	5	164	124	148	3	—	119	119	111	.93		
Blackstone,	6,039	2,689,910	23	899	627	1,075	1	35	631	895	706	.79		
Bolton,	797	490,353	4	120	80	130	—	16	78	113	102	.90		
Boylston,	729	411,237	5	106	65	130	4	9	77	90	80	.91		
Brookfield,	3,279	1,369,670	17	558	405	649	4	61	401	498	456	.91		
Charlton,	1,877	896,700	14	341	242	372	8	15	269	275	242	.88		
Clinton,	11,497	7,469,363	41	2,355	1,610	2,302	24	138	1,496	1,949	1,813	.93		
Dana,	717	299,895	5	105	81	126	2	2	104	104	95	.91		
Douglas,	2,026	1,032,691	10	328	227	375	9	19	227	332	295	.89		
Dudley,	3,203	1,041,116	15	671	519	521	23	8	310	353	327	.93		
Fitchburg,	26,409	23,110,251	107	5,679	3,938	4,357	34	490	2,828	3,761	3,487	.93		
Gardner,	5,182	5,263,071	43	1,730	1,334	1,979	15	169	1,334	1,650	1,514	.91		
Grafton,	5,101	2,410,397	24	921	622	918	3	46	665	790	724	.91		
Hardwick,	2,655	1,547,385	15	553	408	428	3	32	306	357	326	.91		
Harvard,	1,162	931,038	7	150	106	166	2	5	114	128	119	.94		
Holden,	2,602	1,191,388	17	486	343	635	6	55	343	456	421	.92		
Hopedale,	1,377	3,573,618	8	233	166	307	17	35	178	249	234	.94		
Hubbardston,	1,274	627,415	8	199	136	211	3	20	147	195	182	.93		
Lancaster,	2,180	3,103,280	11	415	329	420	2	25	339	376	347	.92		
Leicester,	3,239	2,634,565	16	568	419	748	10	79	369	574	519	.92		
Leominster,	9,211	6,958,115	42	1,918	1,315	2,206	40	251	1,283	1,869	1,733	.92		
Lunenburg,	1,237	791,573	8	215	157	264	7	24	190	198	180	.90		
Mendon,	889	549,796	6	136	96	168	—	20	102	140	130	.92		

## SCHOOL RETURNS.

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	8,959	5,579,123	36	1,474	1,138	1,499	8	169	1,025	1,334	1,260	.93
Milford, . . . . .	5,222	2,290,325	19	829	633	879	6	67	596	715	668	.93
Millbury, . . . . .	542	402,540	3	91	62	86	1	6	56	68	61	.90
New Braintree, . . . . .	1,910	1,256,959	9	373	261	447	2	50	280	375	326	.87
Northborough, . . . . .	5,286	3,339,476	29	1,213	875	1,370	33	88	828	1,112	1,052	.94
North Brookfield, . . . . .	4,635	1,840,895	19	968	618	720	1	39	439	628	589	.94
Oakham, . . . . .	605	311,000	5	100	74	125	2	21	78	93	88	.95
Oxford, . . . . .	2,390	1,302,334	12	486	364	540	6	32	387	403	368	.91
Paxton, . . . . .	426	292,441	2	72	56	68	-	-	56	51	44	.86
Petersham, . . . . .	952	610,217	6	111	84	109	-	6	80	102	96	.93
Phillipston, . . . . .	460	209,573	3	66	51	71	3	2	51	65	41	.74
Princeton, . . . . .	952	847,419	10	122	94	168	4	20	85	140	124	.88
Royalston, . . . . .	890	483,528	7	141	110	175	4	12	134	119	106	.89
Rutland, . . . . .	978	598,626	7	222	164	221	-	12	192	199	179	.90
Shrewsbury, . . . . .	1,524	1,137,855	10	243	186	280	1	33	157	245	222	.91
Southborough, . . . . .	2,223	1,467,881	9	309	235	335	-	30	225	285	253	.89
Southbridge, . . . . .	8,250	3,842,490	30	2,018	1,460	1,251	20	122	787	946	882	.93
Spencer, . . . . .	7,614	3,471,170	39	1,663	1,170	1,367	69	168	936	1,059	1,002	.94
Sterling, . . . . .	1,218	870,980	9	185	138	239	5	31	144	195	180	.92
Sturbridge, . . . . .	1,910	925,366	13	316	220	356	4	4	253	278	256	.92
Sutton, . . . . .	3,420	1,204,969	17	620	417	650	6	27	440	410	358	.87
Templeton, . . . . .	2,915	1,251,257	17	587	436	672	7	35	400	573	506	.88
Upton, . . . . .	2,150	1,049,968	8	280	201	347	-	25	234	306	278	.90
Uxbridge, . . . . .	3,546	2,240,315	17	608	432	700	17	52	425	560	532	.95
Warren, . . . . .	4,430	1,706,174	22	767	519	811	6	70	623	698	646	.92
Wellesley, . . . . .	7,799	3,367,460	18	1,587	1,111	913	9	76	611	654	621	.94
Westborough, . . . . .	5,235	2,848,531	16	622	487	845	11	99	490	696	650	.93
West Boylston, . . . . .	2,968	877,598	15	465	344	522	7	26	340	449	423	.94
West Brookfield, . . . . .	1,467	761,389	7	220	160	237	3	6	157	201	187	.93
Westminster, . . . . .	1,315	643,671	10	185	138	252	1	10	138	213	194	.91
Winchendon, . . . . .	4,490	2,489,935	21	913	641	970	4	85	672	792	743	.93
Worcester, . . . . .	98,767	112,336,099	462	20,159	14,240	21,982	501	1,778	13,366	18,385	16,765	.91
Totals, . . . . .	306,445	\$238,030,978	1,415	55,899	41,938	60,035	964	5,069	38,054	49,637	45,559	.92

# BOARD OF EDUCATION.

## WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.										LENGTH OF SCHOOLING.		HIGH SCHOOLS.			
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduat-ed from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.		
Ashburnham, .	13	1	16	8	8	\$158 00	\$34 00	105-15	8	8	1	15	69	9-10	\$1,500 00	
Athol, .	28	1	31	5	6	180 00	50 32	191-16	8-6	8-6	1	5	136	9-15	1,800 00	
Auburn, .	9	9	10	2	3	-	40 80	77	8-11	8-11	1	1	-	-	-	
Barre, .	12	2	18	10	14	85 00	37 89	86-10	9-11	9-11	1	2	43	10	1,100 00	
Berlin, .	5	7	7	1	3	-	35 20	41	8-4	8-4	1	1	-	-	-	
Blackstone, .	26	2	26	1	1	115 00	52 50	230	10	10	1	3	53	10	1,150 00	
Bolton, .	4	7	7	2	3	-	43 11	36-12	9-4	9-4	1	1	32	9-18	500 00	
Boylston, .	5	8	8	2	2	-	37 50	42	8	8	1	1	-	-	-	
Brookfield, .	20	3	20	2	3	68 67	37 03	151	8-17	8-17	1	2	38	10	1,100 00	
Brookfield, .	14	18	18	1	3	28 00	32 56	108-10	8	8	1	6	193	9-11	1,600 00	
Charlton, .	50	47	47	5	16	130 00	55 15	389-14	9-10	9-10	1	1	-	-	-	
Clinton, .	5	5	5	1	3	32 00	38 00	45	9	9	1	1	-	-	-	
Dana, .	5	10	10	1	3	90 00	35 66	94	9-8	9-8	1	1	26	10	900 00	
Douglas, .	10	1	1	1	3	80 25	34 61	136	9-1	9-1	1	3	38	10	1,500 00	
Dudley, .	17	3	14	33	91	125 00	62 00	998	9-10	9-10	1	24	533	9-10	2,200 00	
Fitchburg, .	124	20	112	21	21	95 60	40 24	404-13	9-12	9-12	1	7	163	10	1,600 00	
Gardner, .	51	4	48	21	14	157 81	42 71	211-16	8-4	8-4	1	3	99	9-10	1,500 00	
Grafton, .	26	1	33	12	15	80 00	35 55	124-17	8-18	8-18	1	2	24	9-15	800 00	
Harvard, .	16	1	21	9	15	-	37 50	62-8	8-18	8-18	1	1	-	-	-	
Harvard, .	7	8	8	1	2	-	37 25	144	9	9	1	2	55	9-15	1,000 00	
Holden, .	18	1	22	7	9	48 00	37 25	144	9-5	9-5	1	2	32	10	1,100 00	
Hopedale, .	11	15	15	7	8	95 00	57 75	74	8-5	8-5	1	1	20	8-5	495 00	
Hubbardston, .	8	2	13	3	7	50 00	37 60	64-15	9-10	9-10	1	1	20	10	1,600 00	
Lancaster, .	15	1	23	10	8	160 00	46 50	104-15	9	9	1	3	81	10	1,400 00	
Leicester, .	21	2	16	13	14	140 00	41 96	144	9-10	9-10	1	3	72	9-15	2,000 00	
Leominster, .	51	5	45	14	20	103 40	43 73	399	8-10	8-10	1	8	186	9-5	750 00	
Lunenburg, .	9	2	12	9	10	56 50	36 00	68	9	9	1	1	29	9-5	500 00	
Mendon, .	6	1	7	-	1	55 56	37 60	54	9	9	1	1	21	9	500 00	

## SCHOOL RETURNS.

lxv

	42	2	41	11	17	110 00	47 60	316-1	8-16	1	5	152	9-16	1,700 00
Milford, . . . . .	23	5	20	8	12	82 00	38 00	172	9-1	1	3	96	10	1,400 00
Millbury, . . . . .	3	-	4	1	3	-	37 55	25-10	8-10	-	-	-	-	-
New Braintree, . . . . .	11	1	12	7	10	105 28	42 01	76-7	8-9	1	2	59	8-18	1,000 00
Northborough, . . . . .	34	1	36	17	17	150 00	46 36	276	9-10	1	4	85	10	1,500 00
Northbridge, . . . . .	19	3	25	2	2	80 00	40 88	174	9-3	1	3	94	10	1,200 00
North Brookfield, . . . . .	5	9	-	-	2	-	32 05	40	8	-	-	-	-	-
Oakham, . . . . .	13	3	13	4	6	70 67	37 10	109	9-2	1	2	59	10	1,000 00
Oxford, . . . . .	2	-	-	3	2	-	39 00	18	9	-	-	-	-	-
Paxton, . . . . .	6	-	7	3	4	-	34 66	43	8	-	-	-	-	-
Petersham, . . . . .	3	-	4	2	2	-	40 00	27	9	-	-	-	-	-
Phillipston, . . . . .	8	-	-	1	2	-	32 63	53-10	7-19	1	2	15	9-5	600 00
Princeton, . . . . .	7	-	-	2	2	-	33 25	56-2	8-6	1	-	-	-	-
Royalston, . . . . .	7	1	11	2	2	-	37 50	56	8	1	2	47	8	416 00
Rutland, . . . . .	11	1	13	2	5	52 00	35 20	81-7	8-17	1	2	55	8-9	720 00
Shrewsbury, . . . . .	11	1	10	2	4	80 00	40 01	79-4	8-16	1	2	55	9-10	1,000 00
Southborough, . . . . .	35	2	33	5	11	105 28	38 64	240-7	9-5	1	3	96	9-15	1,300 00
Southbridge, . . . . .	45	3	42	9	20	72 66	43 12	366-15	9-8	1	5	119	10	1,300 00
Spencer, . . . . .	10	1	12	4	6	73 68	34 00	70-16	7-17	1	1	53	9-6	700 00
Sterling, . . . . .	16	-	16	-	1	-	34 65	110-5	8-5	-	-	-	-	-
Sturbridge, . . . . .	17	-	20	7	10	-	35 43	147-5	8-12	1	1	33	9	600 00
Sutton, . . . . .	19	1	20	3	6	88 89	35 20	153	9	2	3	69	{ 10 10	884 00 400 00
Templeton, . . . . .	10	2	13	7	11	105 55	37 54	72	9	1	3	83	9	950 00
Uxbridge, . . . . .	20	1	25	5	8	137 89	39 38	144-10	8-10	1	2	74	9-10	1,500 00
Warren, . . . . .	22	1	21	12	14	71 31	39 68	168-3	8-17	1	3	65	9-7	1,200 00
Webster, . . . . .	23	5	21	7	7	89 00	43 66	180	10	1	3	79	10	1,800 00
Westborough, . . . . .	23	1	23	7	10	120 00	47 59	141	8-16	1	4	72	9-13	1,200 00
West Boylston, . . . . .	17	2	23	12	22	108 00	39 83	130	8-14	1	3	65	10-18	1,200 00
West Brookfield, . . . . .	7	-	12	6	11	-	37 14	62	8-17	-	-	-	-	-
Westminster, . . . . .	10	-	16	8	9	-	33 43	73-2	7-6	1	1	33	9-3	540 00
Winchendon, . . . . .	26	-	28	8	12	160 00	42 29	189-10	9	1	5	108	10	1,900 00
Worcester, . . . . .	539	60	523	389	410	136 60	59 82	4,620	10	2	69	2,460	{ 10 10	3,000 00 3,000 00
Totals, . . . . .	1,622	162	1,689	725	949	\$112 49	\$47 71	13,065-15	9-4	47	228	6,069	9-12	\$58,109 00

## WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary con- tributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such contributions from other sources than local taxa- tion.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Ashburnham,	\$4,711 00	\$229 50	\$352 00	\$150 00	\$1,779 99	\$522 61	\$111 00	\$6,076 11	\$294 38	\$5,781 73
Athol, .	13,135 59	821 30	2,962 01	38 25	-	1,379 89	674 06	20,791 09	-	20,791 09
Auburn, .	3,615 00	-	390 95	135 13	-	293 72	23 24	4,458 04	459 18	3,998 86
Barre, .	5,353 60	799 65	602 28	106 28	573 48	499 65	15 63	7,950 57	957 38	6,993 19
Berlin, .	2,528 20	-	217 63	70 00	227 28	233 92	12 39	3,289 42	1,504 48	1,784 94
Blackstone,	11,651 50	275 00	-	32 00	900 00	800 00	175 00	13,833 50	244 38	13,589 12
Bolton, .	1,627 00	1,321 50	189 00	50 00	327 85	183 47	7 50	3,706 32	1,398 38	2,307 94
Boylston,	1,836 00	78 00	200 52	81 00	267 86	79 79	34 77	2,577 94	897 64	1,680 30
Brookfield,	7,593 50	86 80	1,239 06	166 75	750 00	598 77	52 25	10,487 13	919 38	9,567 75
Charlton, .	3,723 25	71 50	280 84	174 67	-	375 48	59 50	4,685 24	515 78	4,169 46
Clinton, .	26,520 53	-	4,840 62	300 00	1,800 00	3,377 17	2,221 75	39,060 07	-	39,060 07
Dana, .	1,970 83	38 03	103 25	71 50	-	151 91	5 00	2,340 52	877 92	1,462 60
Douglas,	3,748 00	715 00	877 20	165 00	-	325 94	37 30	5,868 44	552 21	5,316 23
Dudley, .	5,458 80	-	742 79	100 00	480 00	637 28	88 93	7,507 80	669 38	6,838 42
Fitchburg,	80,799 70	1,178 75	13,730 23	1,510 00	2,700 00	5,845 83	5,194 56	110,959 07	226 70	110,732 37
Gardner, .	21,663 40	686 00	4,921 16	25 00	2,250 00	3,062 41	1,173 80	33,781 77	106 00	33,675 77
Grafton, .	11,840 85	2,243 65	1,735 95	268 24	1,218 75	1,196 23	377 13	18,885 80	1,306 68	17,579 12
Hardwick,	5,632 65	271 80	565 69	26 75	617 64	571 70	62 36	7,748 59	809 03	6,939 51
Harvard, .	2,758 57	553 97	292 68	105 00	491 78	203 83	111 69	4,517 52	796 17	3,721 35
Holden, .	6,614 82	140 00	1,398 33	107 00	781 25	606 44	127 27	9,805 11	1,059 18	8,745 93
Hopedale, .	5,157 50	42 00	1,331 06	-	550 00	663 17	726 44	8,470 17	416 67	8,053 50
Hubbardston,	2,595 50	694 50	280 85	114 19	300 00	313 56	24 03	4,322 63	716 38	3,606 25
Lancaster,	7,413 00	561 20	739 00	299 99	-	122 70	192 00	9,901 92	-	9,901 92
Leicester, .	9,583 40	439 77	1,147 37	281 20	781 25	859 87	677 04	13,769 90	869 38	12,900 52
Leominster,	24,724 35	1,416 00	7,545 60	835 35	2,000 00	3,662 29	620 70	40,804 29	660 00	40,144 29
Lenoxburg, .	2,798 12	112 40	592 44	111 25	533 28	302 81	81 00	4,531 30	802 18	3,729 12
London, .	2,247 03	359 00	290 30	20 00	550 00	182 44	283 04	3,931 81	846 05	3,085 76

# SCHOOL RETURNS.

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Milford, . . . . .	10,461 14	166 50	2,946 49	85 00	1,700 00	1,929 24	1,274 24	27,562 61	-	806 88	27,562 61
Millbury, . . . . .	9,863 50	46 31	1,481 62	75 25	720 00	937 96	711 34	13,835 98	806 88	13,029 10	13,029 10
New Braintree, . . . . .	962 50	509 50	131 98	24 00	465 00	122 41	244 41	2,459 81	921 52	1,538 29	1,538 29
Northborough, . . . . .	5,003 50	839 20	1,083 95	100 00	409 08	721 72	236 16	8,413 61	909 38	7,504 23	7,504 23
Northbridge, . . . . .	16,361 10	638 90	3,175 97	22 63	600 00	1,182 89	406 04	22,387 53	-	22,387 53	22,387 53
North Brookfield, . . . . .	8,073 50	1,000 00	1,454 76	188 25	750 00	1,618 91	63 26	13,148 68	919 38	12,229 30	12,229 30
Oakham, . . . . .	1,346 50	78 30	139 85	93 06	-	217 22	-	1,874 93	733 18	1,141 75	1,141 75
Oxford, . . . . .	5,410 80	99 00	950 65	160 00	400 00	579 41	376 77	7,976 75	606 88	7,369 75	7,369 75
Paxton, . . . . .	917 40	424 00	263 41	80 00	-	165 68	94 97	1,945 46	631 94	1,313 52	1,313 52
Petersham, . . . . .	1,886 00	649 11	134 25	45 00	308 96	150 35	100 11	7,976 75	674 36	2,599 42	2,599 42
Phillipston, . . . . .	1,078 00	234 00	66 15	45 50	250 00	168 20	-	1,841 85	925 52	916 33	916 33
Princeton, . . . . .	3,285 45	206 00	352 59	100 00	300 00	229 18	-	4,473 22	644 38	3,828 84	3,828 84
Royalston, . . . . .	1,877 00	123 00	164 75	76 50	300 00	230 40	14 00	2,785 65	1,273 39	1,512 26	1,512 26
Rutland, . . . . .	2,186 00	665 00	429 37	145 00	-	274 00	26 00	3,725 37	538 02	3,187 35	3,187 35
Shrewsbury, . . . . .	4,128 30	101 50	487 75	140 00	454 56	391 98	212 55	5,916 64	673 18	5,243 46	5,243 46
Southborough, . . . . .	4,674 78	994 00	704 70	150 00	409 08	638 09	268 73	7,839 38	700 14	7,139 24	7,139 24
Southbridge, . . . . .	15,385 25	48 00	3,091 38	76 50	1,400 00	2,027 18	902 57	22,931 88	-	22,931 88	22,931 88
Spencer, . . . . .	19,303 40	183 50	5,360 54	28 25	1,300 00	1,686 58	2,913 07	30,805 34	82 25	30,723 09	30,723 09
Sterling, . . . . .	3,489 94	401 00	318 61	67 00	600 00	318 22	31 50	5,226 27	1,583 96	3,642 31	3,642 31
Sturbridge, . . . . .	1,174 57	1,754 57	451 26	53 70	620 00	364 07	609 25	7,102 35	964 63	6,137 72	6,137 72
Sutton, . . . . .	5,329 46	291 00	445 36	208 00	-	562 95	369 14	7,205 91	472 18	6,733 73	6,733 73
Templeton, . . . . .	5,886 01	796 50	1,213 94	109 91	750 00	857 49	45 00	9,658 85	886 02	8,772 83	8,772 83
Upton, . . . . .	4,183 50	753 00	1,062 77	35 00	456 25	525 92	107 45	7,123 89	795 88	6,328 01	6,328 01
Uxbridge, . . . . .	7,761 81	362 20	1,483 80	30 00	300 00	398 95	954 21	11,290 97	244 43	11,046 54	11,046 54
Warren, . . . . .	9,991 08	742 80	2,193 82	12 75	1,200 00	1,402 03	398 60	15,941 08	1,594 38	14,346 70	14,346 70
Webster, . . . . .	12,145 10	50 00	2,349 53	150 00	800 00	1,111 39	1,225 45	17,831 47	100 00	17,731 47	17,731 47
Westborough, . . . . .	10,063 77	1,943 41	1,841 89	27 00	615 00	1,003 35	439 86	15,934 28	266 07	15,668 21	15,668 21
West Boylston, . . . . .	7,259 20	55 00	1,199 27	162 00	960 00	581 16	196 54	10,413 17	672 89	9,740 28	9,740 28
West Brookfield, . . . . .	2,762 98	744 50	448 54	47 75	465 00	296 67	350 28	5,115 72	730 52	4,385 20	4,385 20
Westminster, . . . . .	2,781 50	586 00	390 35	54 50	600 00	126 14	188 34	4,726 83	903 88	3,822 95	3,822 95
Winchendon, . . . . .	13,371 30	387 25	3,241 13	369 58	1,066 36	1,484 34	1,236 76	21,156 72	8,993 75	12,162 97	12,162 97
Worcester, . . . . .	373,769 43	129 00	77,151 98	3,400 00	4,000 00	37,507 91	11,938 31	507,896 63	1,992 14	505,904 49	505,904 49
Totals, . . . . .	\$861,161 39	\$28,582 37	\$163,781 22	\$11,706 68	\$42,079 70	\$87,508 21	\$39,064 99	\$1,233,884 56	\$49,010 11	\$1,184,874 45	\$1,184,874 45

WORCESTER COUNTY — CONCLUDED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for school buildings, that is, for all school purposes.	ACADEMIES AND PRIVATE SCHOOLS.			
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					No. of academies.	No. of different academies during the year.	No. of private schools.	No. of different private school pupils attending during the year.
Asburnham, .	-	-	\$106 89	\$106 89	-	\$106 89	\$5,888 62	1	125	-	-
Athol, .	-	-	576 32	576 32	-	576 32	21,367 41	-	-	-	-
Auburn, .	-	\$18 00	296 63	314 63	-	314 63	4,313 49	-	-	-	-
Barre, .	-	-	344 14	344 14	-	344 14	7,337 33	-	-	-	-
Berlin, .	-	-	48 28	48 28	-	48 28	1,833 22	-	-	-	-
Blackstone, .	-	100 00	700 00	800 00	-	800 00	14,389 12	-	-	-	-
Bolton, .	-	1,092 26	165 50	1,257 76	-	1,257 76	3,565 70	-	-	-	-
Boylston, .	-	-	113 45	113 45	-	113 45	1,793 75	-	-	-	-
Brookfield, .	-	75 00	283 90	358 90	-	358 90	9,926 65	-	-	-	-
Charlton, .	\$3,633 16	-	61 43	3,694 59	-	3,694 59	7,864 05	-	-	-	-
Clinton, .	-	-	2,423 88	2,423 88	-	2,423 88	41,483 95	-	-	3	394
Dana, .	-	-	38 70	38 70	-	38 70	1,501 30	-	-	-	-
Douglas, .	-	187 42	-	187 42	-	187 42	5,739 63	-	-	-	-
Dudley, .	-	-	211 68	211 68	-	211 68	7,050 10	-	38	-	-
Fitchburg, .	20,000 00	257 49	2,179 16	22,436 65	-	22,436 65	133,169 02	1	-	3	1,600
Gardner, .	-	-	1,205 10	1,205 10	-	1,205 10	34,880 87	-	-	-	-
Grafton, .	30,350 00	14,650 00	1,792 84	46,792 84	-	46,792 84	64,371 96	-	-	-	-
Hardwick, .	35 16	-	349 86	385 02	-	385 02	7,324 53	-	-	1	179
Harvard, .	-	-	50 51	50 51	-	50 51	3,771 86	-	-	1	20
Holden, .	-	-	55 62	55 62	-	55 62	8,801 55	-	-	-	-
Hopedale, .	-	-	160 43	160 43	-	160 43	8,213 93	-	-	-	-
Hubbardston, .	-	-	154 85	154 85	\$24 00	130 85	3,737 10	-	-	-	-
Lancaster, .	-	300 00	300 00	600 00	-	600 00	10,501 92	-	142	2	12
Leicester, .	-	955 73	109 79	1,065 52	-	1,065 52	13,966 04	1	72	-	-
Leominster, .	-	3,553 95	816 37	4,370 32	-	4,370 32	44,514 61	1	-	-	-
Lunenburg, .	-	-	259 46	259 46	-	259 46	3,988 58	-	-	-	-
Mendon, .	-	24 37	32 91	57 28	-	57 28	3,143 04	-	-	-	-



## SCHOOL RETURNS.

LXIX

Milford, . . . . .	-	1,880 71	1,880 71	-	1,880 71	29,443 32	-	1	300
Milbury, . . . . .	-	556 04	556 04	-	556 04	13,585 14	-	-	-
New Braintree, . . . . .	-	14 75	140 59	-	140 59	1,678 88	-	-	-
Northborough, . . . . .	2,000 00	315 15	2,531 79	-	2,531 79	10,036 02	-	-	-
Northbridge, . . . . .	-	270 20	1,430 03	-	1,430 03	23,817 56	-	8	250
North Brookfield, . . . . .	-	556 23	814 64	-	814 64	13,043 94	-	-	-
Oakham, . . . . .	-	-	9 15	-	9 15	1,150 90	-	-	-
Oxford, . . . . .	3,558 97	214 10	3,773 07	-	3,773 07	11,142 82	-	-	-
Paxton, . . . . .	-	-	-	-	-	1,313 52	-	-	-
Petersham, . . . . .	-	-	137 02	-	137 02	2,738 44	-	-	-
Phillipston, . . . . .	-	-	24 68	-	24 68	941 01	-	-	-
Princeton, . . . . .	-	5,417 00	5,541 10	-	5,541 10	9,369 94	-	-	-
Royalston, . . . . .	-	-	161 19	-	161 19	1,673 45	-	-	-
Rutland, . . . . .	8,000 00	-	8,014 00	-	8,014 00	11,201 35	-	-	-
Shrewsbury, . . . . .	-	-	143 72	-	143 72	5,387 18	-	-	-
Southborough, . . . . .	27,712 22	-	27,877 95	-	27,877 95	35,017 19	1	1	44
Southbridge, . . . . .	-	499 41	1,051 73	-	1,051 73	23,983 61	-	2	994
Spencer, . . . . .	-	123 00	1,205 73	-	1,205 73	31,928 82	-	1	400
Sterling, . . . . .	-	131 00	329 12	-	329 12	3,971 43	-	-	-
Sturbridge, . . . . .	-	164 16	309 57	-	309 57	6,447 29	-	-	-
Sutton, . . . . .	-	173 68	308 23	-	308 23	7,041 96	-	1	58
Templeton, . . . . .	-	-	422 78	-	422 78	9,195 61	-	-	-
Upton, . . . . .	-	-	204 13	-	204 13	6,532 14	-	-	-
Uxbridge, . . . . .	-	-	242 29	-	242 29	11,288 83	-	-	-
Warren, . . . . .	-	886 99	886 99	-	886 99	15,133 69	-	-	-
Webster, . . . . .	24,530 82	499 91	25,030 73	-	25,030 73	42,762 20	-	3	975
Westborough, . . . . .	-	759 66	759 66	-	759 66	16,427 87	-	-	-
West Boylston, . . . . .	-	64 10	64 10	-	64 10	9,804 38	-	-	-
West Brookfield, . . . . .	-	142 58	142 58	-	142 58	4,527 78	-	-	-
Westminster, . . . . .	-	155 09	155 09	-	155 09	3,978 04	-	-	-
Winchendon, . . . . .	-	-	1,056 51	39 42	1,017 09	13,180 06	-	-	-
Worcester, . . . . .	151,706 01	12,575 25	194,171 15	-	194,171 15	700,075 64	1	15	3,023
Totals, . . . . .	\$271,526 34	\$42,353 62	\$367,446 31	\$63 42	\$367,382 89	\$1,552,257 34	6	42	8,249

## RECAPITULATION.

COUNTIES.	Population — State Census of 1895.	Valuation — May 1, 1899.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1899.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.						
				No. of persons in town between 5 and 15 years of age.	No. of persons in town between 7 and 14 years of age.	No. of different pupils within the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Barnstable,	27,654	\$23,040,063	154	4,195	2,910	5,005	11	695	2,944	4,274	3,943	.92
Berkshire,	86,292	57,271,448	479	17,363	12,405	18,214	229	1,464	11,916	14,865	13,671	.92
Bristol,	219,019	179,575,130	828	43,923	31,327	41,070	394	2,794	26,723	32,497	29,663	.91
Dukes,	4,238	4,228,156	24	605	425	662	1	84	423	573	526	.92
Essex,	330,393	264,093,840	1,249	56,406	38,808	55,634	856	5,881	33,265	47,580	44,157	.93
Franklin,	40,145	22,490,005	265	6,839	4,893	7,726	152	730	4,920	6,684	6,144	.92
Hampden,	152,938	142,920,631	689	30,457	22,133	30,011	342	2,791	18,586	24,163	22,264	.92
Hampshire,	54,710	32,337,048	301	9,750	7,003	10,245	215	787	6,570	8,492	7,982	.93
Middlesex,	499,217	505,593,566	2,115	91,024	63,074	100,143	3,603	10,569	59,304	84,040	77,756	.93
Nantucket,	3,016	3,344,038	11	329	249	409	10	70	240	351	313	.89
Norfolk,	131,819	194,618,252	658	25,419	18,291	28,525	638	2,685	17,302	24,104	22,307	.93
Plymouth,	101,498	78,212,386	490	17,899	12,706	20,031	159	2,132	13,367	17,181	15,890	.92
Suffolk,	539,799	1,130,265,681	1,762	94,809	64,517	97,177	2,321	9,003	54,811	84,982	76,061	.90
Worcester,	306,445	238,030,978	1,415	58,899	41,938	60,035	964	5,069	38,034	49,637	45,559	.92
Totals,	2,500,293	\$2,876,021,222	10,440	457,917	320,979	474,891	9,895	44,754	288,025	399,423	366,136	.92

## RECAPITULATION — CONTINUED.

COUNTIES.	TEACHERS AND TEACHERS' WAGES.								LENGTH OF SCHOOLING.			HIGH SCHOOLS.			
	No. of teachers re- quired by the pub- lic schools.	No. of different male teachers during the school year.	No. of different fe- male teachers em- ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor- mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Ave No. of months the public schools during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Principal's salary.		
Barnstable, . . . . .	170	39	172	62	91	\$74 35	\$38 27	1,352-11	8-15	14	28	657	\$12,797 25		
Berkshire, . . . . .	545	55	564	139	184	62 06	39 54	4,340-6	9-1	12	43	1,237	14,728 00		
Bristol, . . . . .	1,054	82	1,053	232	307	115 55	48 77	7,738-12	9-5	12	68	2,056	16,470 00		
Dukes, . . . . .	27	6	29	14	15	56 66	36 95	212-2	8-16	3	3	65	1,845 00		
Essex, . . . . .	1,458	105	1,430	429	481	132 57	49 63	11,819-17	9-9	30	185	5,062	44,250 50		
Franklin, . . . . .	282	13	333	77	101	80 88	36 21	2,250-13	8-9	11	33	752	10,608 33		
Hampden, . . . . .	858	78	901	373	432	127 92	51 91	6,501-9	9-8	10	95	2,014	19,800 00		
Hampshire, . . . . .	337	27	400	105	128	88 90	36 74	2,663-10	8-16	11	32	820	11,232 12		
Middlesex, . . . . .	2,572	226	2,606	972	1,179	142 13	57 01	20,073-10	9-9	49	351	9,785	77,988 20		
Nantucket, . . . . .	13	1	12	2	3	120 00	33 25	103	9	1	3	99	1,200 00		
Norfolk, . . . . .	786	91	791	285	338	111 03	51 21	6,262-6	9-10	27	116	3,113	36,644 25		
Plymouth, . . . . .	541	56	604	214	274	104 23	46 39	4,514-8	9-4	20	73	2,050	22,250 66		
Suffolk, . . . . .	2,025	255	1,795	1,276	1,349	209 52	70 24	17,920-2	10-3	14	224	6,813	45,950 00		
Worcester, . . . . .	1,622	162	1,639	725	949	112 49	47 71	13,065-15	9-4	47	228	6,069	53,109 00		
Totals, . . . . .	12,290	1,196	12,379	4,905	5,831	\$136 54	\$52 50	98,823-1	9-9	261	1,437	40,592	\$373,893 31		

## RECAPITULATION — CONTINUED.

COUNTIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such schools, less the amount contributed from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transport service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Barnstable, . . . . .	\$70,232 61	\$7,266 56	\$12,503 85	\$1,599 70	\$7,850 54	\$6,751 97	\$1,945 24	\$108,149 97	\$12,578 86	\$95,571 11
Berkshire, . . . . .	222,149 42	5,197 73	41,076 75	5,380 84	14,185 34	20,976 63	7,109 42	316,076 13	20,431 03	295,645 10
Bristol, . . . . .	547,542 79	6,872 13	103,179 99	11,350 32	17,829 11	39,603 21	31,575 45	757,553 00	24,837 27	733,115 73
Dukes, . . . . .	10,269 35	646 25	1,771 23	363 25	1,549 92	1,530 84	520 79	16,551 63	4,134 96	12,516 67
Essex, . . . . .	827,525 00	8,506 37	138,209 80	16,871 71	25,432 08	86,616 02	23,601 67	1,126,762 15	14,657 03	1,112,105 12
Franklin, . . . . .	102,188 79	9,496 09	13,066 76	1,905 78	10,892 59	9,880 69	3,726 27	151,156 97	24,689 58	125,467 39
Hampton, . . . . .	503,962 91	5,354 01	93,530 32	9,560 47	18,966 00	63,052 65	22,204 47	703,450 81	25,028 76	683,422 05
Hampshire, . . . . .	130,849 07	4,341 42	22,360 20	2,698 93	9,884 41	14,205 51	4,079 22	188,418 76	30,840 75	167,578 01
Middlesex, . . . . .	1,661,484 75	35,470 42	294,825 37	24,557 88	56,505 13	134,929 73	75,215 65	2,282,988 93	34,801 23	2,248,187 70
Nantucket, . . . . .	5,380 00	—	588 48	100 00	—	671 30	244 59	6,984 37	—	6,984 37
Norfolk, . . . . .	465,877 73	16,338 12	87,215 15	5,752 19	28,509 36	41,948 05	21,957 01	667,597 61	12,173 87	655,423 74
Plymouth, . . . . .	275,122 93	11,405 29	46,737 64	4,646 15	16,890 00	24,511 41	10,259 66	389,572 98	13,688 79	375,884 19
Suffolk, . . . . .	2,205,712 06	2,277 08	208,875 04	44,329 41	31,313 33	94,789 01	75,541 94	2,722,537 87	10,633 34	2,712,204 53
Worcester, . . . . .	861,161 39	28,582 37	163,781 22	11,706 68	42,079 70	87,508 21	39,064 99	1,233,884 56	49,010 11	1,184,874 45
Totals, . . . . .	\$7,891,458 80	\$141,763 84	\$1,287,540 80	\$140,823 31	\$281,887 51	\$616,975 21	\$317,046 27	\$10,677,485 74	\$267,505 58	\$10,409,980 16

# SCHOOL RETURNS.

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## RECAPITULATION — CONCLUDED.

COUNTIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.		ACADEMIES AND PRIVATE SCHOOLS.			
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.			Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private pupils attending during the year.
Barnstable, . . . . .	\$2,360 00	\$6,982 70	\$5,961 87	\$15,304 57	\$5,000 00	\$10,304 57	\$105,875 68	1	—	15	2,918
Berkshire, . . . . .	60,413 80	10,029 30	12,612 81	83,055 41	54 71	83,000 70	378,645 80	3	197	28	8,904
Bristol, . . . . .	97,346 02	22,033 92	22,107 62	141,487 56	—	141,487 56	874,603 29	5	—	—	—
Dukes, . . . . .	—	131 26	611 20	742 46	—	742 46	13,259 13	1	—	—	—
Essex, . . . . .	277,168 14	30,143 75	55,393 63	362,705 52	831 53	361,873 99	1,473,979 11	5	712	44	9,464
Franklin, . . . . .	—	22,535 52	3,710 39	26,245 91	103 81	26,142 10	152,609 49	8	1,025	2	210
Hampden, . . . . .	99,489 72	6,619 65	22,615 39	128,724 76	175 00	128,549 76	811,971 81	4	355	24	7,369
Hampshire, . . . . .	2,117 37	28,696 99	7,702 79	38,517 15	—	38,517 15	206,095 16	4	364	8	1,313
Middlesex, . . . . .	401,088 08	122,226 12	100,980 51	624,294 71	2,113 58	622,181 13	2,870,318 83	12	2,037	70	13,809
Nantucket, . . . . .	—	2,351 74	232 67	2,584 41	—	2,584 41	9,568 78	1	—	—	—
Norfolk, . . . . .	141,705 85	10,198 16	24,636 97	176,540 98	—	176,540 98	831,964 72	4	406	24	2,346
Plymouth, . . . . .	22,861 82	25,266 81	18,700 84	66,829 17	—	66,829 17	442,713 36	4	144	6	789
Suffolk, . . . . .	824,116 82	284,434 26	5,777 67	1,114,328 75	—	1,114,328 75	3,826,533 28	3	88	103	17,884
Worcester, . . . . .	271,526 34	42,353 62	53,566 35	367,446 31	63 42	367,382 89	1,562,237 34	6	742	42	8,249
Totals, . . . . .	\$2,290,193 16	\$614,003 80	\$334,560 71	\$3,148,757 67	\$8,342 05	\$3,140,415 62	\$13,550,395 78	53	6,090	366	73,205

## EVENING SCHOOLS.

CITIES AND TOWNS.	No. of schools.	ATTENDANCE.			Time. Average No. of evenings.	No. of teachers.	Expense.
		Males.	Females.	Average.			
Auburn, . . .	1	16	7	10	67	1	\$143 00
Beverly, . . .	3	99	67	58	24	5	877 63
Boston, . . .	184	3,288	1,915	3,666	94	199	77,696 86
Brockton, . . .	12	224	111	105	76	13	1,527 90
Brookline, . . .	6	88	89	48	65	6	1,620 77
Cambridge, . . .	31	1,014	338	551	50	62	7,243 58
Chelsea, . . .	7	309	130	128	50	14	1,430 32
Chicopee, . . .	19	299	224	408	40	39	1,846 91
Clinton, . . .	5	127	66	101	64	9	589 00
Dudley, . . .	2	95	40	61	35	4	194 45
Easton, . . .	1	20	5	11	60	1	187 43
Everett, . . .	5	113	62	50	54	7	991 11
Fall River, . . .	56	2,223	1,207	2,034	47	140	10,729 59
Fitchburg, . . .	3	182	45	149	60	22	3,895 40
Framingham, . . .	3	102	87	98	42	6	757 03
Greenfield, . . .	3	64	32	36	51	5	320 30
Gardner, . . .	3	95	6	65	45	16	817 30
Haverhill, . . .	15	347	220	223	58	30	1,688 08
Holyoke, . . .	27	586	492	541	60	55	9,648 50
Hyde Park, . . .	3	103	27	53	62	4	672 01
Lawrence, . . .	38	974	523	1,002	80	60	6,406 25
Lowell, . . .	81	2,182	1,007	1,553	70	135	17,351 50
Lynn, . . .	12	389	371	240	34	27	2,436 48
Malden, . . .	9	319	151	159	68	15	3,395 95
Marlborough, . . .	6	185	48	65	50	7	866 14
Medford, . . .	6	187	74	57	60	6	1,176 85
Natick, . . .	2	24	7	13	50	2	269 05
New Bedford, . . .	37	1,652	903	1,093	20	77	7,164 34
Newburyport, . . .	2	36	25	22	30	5	103 50
Newton, . . .	3	155	73	75	33	9	860 73
North Adams, . . .	14	249	103	278	40	18	1,600 00
Northampton, . . .	5	47	38	55	55	8	802 08
North Attleborough, . . .	1	24	14	17	33	2	132 00
Northbridge, . . .	2	72	36	78	32	4	214 40
Peabody, . . .	6	54	42	68	36	7	400 50
Pittsfield, . . .	6	206	73	71	47	8	582 75
Quincy, . . .	7	233	41	97	41	8	1,289 84
Salem, . . .	12	264	192	167	53	24	3,300 00
Somerville, . . .	12	442	97	182	63	20	3,776 07
Southbridge, . . .	4	113	83	135	41	7	634 56
South Hadley, . . .	2	46	27	34	40	4	315 15
Spencer, . . .	4	28	15	34	42	4	219 12
Springfield, . . .	37	910	595	663	106	44	7,659 03
Taunton, . . .	9	238	105	235	35	19	1,463 00
Waltham, . . .	9	188	115	160	49	13	1,782 00
Webster, . . .	5	125	120	120	60	9	579 40
Westfield, . . .	4	58	50	40	42	5	278 00
Woburn, . . .	4	108	29	57	42	7	598 13
Worcester, . . .	55	1,121	458	1,027	102	71	19,743 96
Totals, . . .	783	20,023	10,585	16,193	52	1,263	\$208,277 95

# SCHOOL RETURNS.

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## RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE SCHOOL YEAR 1899-1900.

STATE INSTITUTIONS.	No. of schools in the institution.	No. of different scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending school.	No. over 15 years of age attending school.	No. between 5 and 15 years of age remaining in the institution July 31, 1900.	No. of Teachers during the Year.		Wages of Teachers per Month.		Length of each school in months.
							Males.	Females.	Males.	Females.	
State Industrial School at Lancaster, . .	7	134	171	-	142	45	-	7*	-	\$25 00† to 29 16‡	12
Lyman School for Boys at Westborough, .	9	527	299	-	128	171	-	9†	-	33 00† to 50 00‡	10

\* Also a teacher of gymnastics, \$200 per six months; and the supervisor of schools, \$375 per annum.

† Also a principal, \$700; 2 sloyd teachers, \$300 and \$500; drawing teacher, \$500; teacher of physical culture, \$1,000; superintendent of manual training, \$1,000.

‡ And home.

GRADUATED TABLES.

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In order to show the comparative standing of the towns and cities (1) in the taxes which they impose upon themselves for the support of their public schools, (2) in the ratio which these taxes bear to their respective valuations, and (3) in the ratio of the attendance upon the public schools to the whole number of children between five and fifteen, three graduated tables have been prepared.

For the sake of brevity as well as convenience of reference these tables may be named as follows:—

- I. Graduated taxation table.
- II. Graduated valuation table.
- III. Graduated attendance table.

I. *Graduated Taxation Table.*

This table takes the place of the first and fourth tables in previous reports of the Board, the fourth appearing for the first time in the fifty-ninth report.

The first part of this table is required to meet the purposes of section 5, chapter 43 of the Public Statutes. It gives the sums raised by taxation and expended for the support of public schools by towns and cities for each child between five and fifteen years of age, and the towns and cities are classified according to such sums. The facts presented in this way have been freely used by some places as a lever for increasing their appropriations; by other places as a lever for reducing them. Inasmuch as in some places large numbers of children between five and fifteen are in private schools; inasmuch, also, as the proportions of those children between five and fifteen years of age who attend the public schools vary considerably, the children entering later and leaving earlier in some places than in others, it follows that the division of the amount raised by taxation and expended for the support of public schools by the number of all the children between five and fifteen years of age, without reference to whether they are in the public schools or not, may yield results that cannot be fairly used for purposes of comparison, unless it is known from other sources that the conditions of public school attendance in the places compared are the same.

Now the money for the public schools is expended upon those persons who attend them, whether they are within the limits of five and fifteen or without. It is determined more by the average membership than by any other factor. Consequently the second part of the first table is valuable for making known in a comparative way just how the towns and cities stand in what they spend upon each person actually in attendance upon the public schools.



The amount of money raised by taxation and expended for the support of public schools is, in the case of each town or city of the table, the amount raised and expended for the various classes of school purposes included under the statutory definition of "support," (see chapter 175, Acts of 1900), namely:—

1. The wages of teachers.
2. The transportation of school children.
3. The care of fires, schoolrooms and school premises.
4. Supervision.
5. Text-books and supplies.
6. School sundries or incidentals.

The amount thus raised by taxation and expended does not include expenditures for repairs, alterations and construction of schoolhouses, such expenditures being excluded by statute from the definition of support.

In determining the amount raised by taxation and expended for the public schools the following classes of voluntary contributions towards their support merit consideration:—

1. The income from the surplus revenue and other funds—the dog tax, for instance—which towns and cities have set apart for the public schools although having it in their legal power to use such income for other than school purposes.

2. The income from funds which have been given to the towns and cities and are held by them upon the express condition that such income shall go towards the support of the public schools.

3. Other voluntary contributions for the support of the public schools.

Money of the first class, when used for the public schools, is regarded as equivalent to money raised by taxation for the schools and so is included in the amount upon which the table is based. The use of such money for the schools is an evidence of the town's liberality towards them. The expenditure of money under the second and third classes is not included in the amount used as the basis of the table.

## II. *Graduated Valuation Table.*

This table exhibits for the several towns and cities the ratios which the sums raised by taxation and expended for the support of the public schools bear to their respective assessed valuations. For convenience of apprehension the ratio in each case is expressed as so many dollars of tax on a thousand dollars of valuation.

## III. *Graduated Attendance Table.*

This table exhibits for the several towns and cities the ratio in each case of the average attendance upon the public schools to the whole number of children between five and fifteen reported in the school census. If there are no private schools, the ratio is likely to be high. If there are no private schools and at the same time an unusually large proportion of the children under five and over fifteen are attending school, the ratio may exceed even a hundred per cent. On the other hand, if children attend private schools in any considerable number, the fact is likely to be reflected in a lower ratio.

## I. GRADUATED TAXATION TABLE.

Table showing for the several towns and cities of the State the comparative amounts of money raised by taxation and expended for the support of public schools per child, as determined (1) by the number of children between five and fifteen years of age in the town or city and (2) by the number of children in the average membership of the public schools.

	TOWNS AND CITIES.		No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised by taxation and expended for the support of public schools.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
	For 1898-1899.	For 1899-1900.							
1	1	1	209	\$11,363 30	\$54 36.9	1	Weston,	217	\$52 36.5
2	2	2	107	5,685 05	52 19.6	2	Nahant,	110	50 77.3
3	3	3	1,110	54,793 80	49 36.3	3	Milton,	1,162	47 41.2
4	4	4	2,934	130,115 38	44 34.7	5	Brookline,	612	42 66.5
5	5	6	671	26,112 57	38 91.5	6	Wellesley,	3,151	41 29.3
6	6	7	512	19,138 32	37 37.9	7	Brookline,	399	39 75.2
7	7	8	1,960	69,698 83	35 56.0	8	Falmouth,	140	39 36.7
8	8	9	447	15,861 33	35 48.3	9	Hull,	136	36 63.0
9	9	10	233	8,053 50	34 56.4	10	Lincoln,	5,025	35 19.2
10	10	11	5,155	176,840 45	34 30.4	11	Newton,	551	34 73.3
11	11	12	553	18,944 52	34 23.7	12	Belmont,	157	34 33.3
12	12	13	162	5,511 47	34 02.1	13	Westwood,	178	34 29.6
13	13	14	180	6,104 83	33 91.5	14	Sudbury,	5,407	34 00.1
14	14	15	401	13,078 21	32 61.3	15	Holyoke,	9,072	33 37.6
15	15	16	612	19,388 95	31 68.1	16	Springfield,	97	32 87.3
16	16	17	122	3,828 84	31 38.3	17	Longmeadow,	77,008	32 86.3
17	17	18	9,738	302,794 35	31 09.4	18	Boston,	401	32 61.3
18	18	19	776	23,725 35	30 57.3	19	Cohasset,	249	32 34.3
19	19	20	360	10,861 66	30 17.1	20	Hopedale,	1,132	31 45.0
20	20	21	166	4,981 76	29 01.0	21	Watertown,	83	31 00.8
21	21	22	1,299	38,724 79	29 81.1	22	Tyngsborough,	351	30 94.4
22	22	23	86,505	2,530,746 96	29 25.5	23	Manchester,	616	30 75.4
23	23		3,197	92,486 84	28 92.9		Dedham,	1,275	30 37.2

17	24	Hingham, .	20,914 20	723	28 92.6	32	24	Malden, .	5,247	30 34.8
11	25	Westwood, .	5,390 36	187	28 82.5	27	25	Medford, .	3,078	30 04.7
36	26	Winchester, .	33,224 50	1,155	28 76.5	20	26	Canton, .	571	29 68.9
40	27	Winthrop, .	24,237 41	844	28 71.7	29	27	Fitchburg, .	3,761	29 44.2
101	28	Groton, .	10,033 74	353	28 48.0	30	28	Harvard, .	128	29 07.3
89	29	Needham, .	16,900 68	605	27 93.5	122	29	Spencer, .	1,059	29 01.1
43	30	Cambridge, .	37,781 38	13,780	27 41.7	22	30	Burlington, .	54	29 01.0
29	31	Malden, .	37,140 17	1,364	27 22.8	37	31	Hyde Park, .	1,577	29 00.7
31	32	Malden, .	139,236 00	5,858	27 18.2	21	32	Dover, .	28 79.4	28 79.4
52	33	Mattapoisett, .	3,752 52	140	26 80.3	33	33	Lovell, .	10,584	28 51.4
94	34	Swampscott, .	17,240 37	653	26 40.2	39	34	Cambridge, .	13,255	28 50.3
80	35	Wrentham, .	11,992 91	431	26 39.2	35	35	Barnstable, .	688	28 18.1
53	36	Littleton, .	5,205 14	200	26 12.5	54	36	Concord, .	848	27 97.8
33	37	Merrimac, .	9,141 68	350	26 11.9	89	37	Boxford, .	77	27 86.9
35	38	Abington, .	17,479 54	671	26 01.9	25	38	Salem, .	4,334	27 81.4
41	39	Dalton, .	13,601 79	523	26 00.7	68	39	Melrose, .	2,506	27 81.2
26	40	Ashland, .	6,998 68	270	25 92.1	17	40	Middleton, .	95	27 79.5
51	41	Sonerville, .	244,914 91	9,485	25 82.1	132	41	Lynnfield, .	98	27 73.8
98	42	Stockbridge, .	10,165 34	394	25 80.0	26	42	Waltham, .	2,781	27 58.2
115	43	Revere, .	48,133 47	1,869	25 75.3	40	43	Arlington, .	1,347	27 57.2
58	44	Frammingham, .	47,567 78	1,819	25 72.6	47	44	Worcester, .	18,385	27 51.7
75	45	Marshfield, .	6,706 96	263	25 50.1	52	45	Swampscott, .	629	27 40.9
68	46	Greenfield, .	32,847 89	1,289	25 48.3	65	46	Mattapoisett, .	137	27 39.0
256	47	Edgartown, .	3,150 38	124	25 40.6	34	47	Princeton, .	140	27 34.8
90	48	Walpole, .	14,075 48	555	25 36.1	100	48	Webster, .	654	27 11.2
44	49	Yarmouth, .	4,488 00	177	25 35.5	36	49	Hingham, .	772	27 09.0
56	50	Tisbury, .	3,275 76	130	25 19.8	156	50	Wrentham, .	445	26 74.8
82	51	Westborough, .	15,668 21	622	25 19.0	41	51	Haverhill, .	4,660	26 69.7
52	52	Reading, .	20,922 28	832	25 14.6	50	52	Stockbridge, .	382	26 61.0
79	53	Worcester, .	505,904 49	20,139	25 09.5	43	53	Sonerville, .	9,298	26 34.0
60	54	Tyngsborough, .	2,573 69	103	24 98.7	80	54	Lancaster, .	376	26 33.4
20	55	Amherst, .	15,947 00	642	24 83.9	85	55	Bedford, .	170	26 22.7
83	56	Harvard, .	3,721 35	150	24 80.8	70	56	Lynn, .	9,241	26 20.8
278	57	West Tisbury, .	1,060 50	43	24 66.2	43	57	Cottage City, .	161	26 14.0
100	58	Norfolk, .	3,223 43	131	24 60.6	56	58	New Bedford, .	7,399	25 95.2
65	59	Sandwich, .	6,159 63	210	24 56.9	51	59	Marshfield, .	239	25 89.5
30	60	Wayland, .	10,230 90	418	24 47.5	185	60	Paxton, .	51	25 75.5
120	61	Andover, .	23,078 85	948	24 34.4	95	61	Northampton, .	2,326	25 72.5
45	62	Acton, .	6,787 77	279	24 32.8	91	62	Dracut, .	400	25 67.7
57	63	Watertown, .	35,602 25	1,477	24 10.4	101	63	Winchester, .	1,294	25 67.5

Table showing the comparative amounts of money raised by taxation, etc. — Continued.

For 1898-1899.		TOWNS AND CITIES.		Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
38	64	Longmeadow,	.	\$3,188 73	133	\$23 97.5	59	64	Westfield,	1,775	\$25 63.3
99	65	Lynn,	.	242,195 86	10,107	23 96.3	78	65	Littleton,	204	25 51.5
88	66	Brintree,	.	23,617 52	987	23 92.8	42	66	Petersham,	102	25 48.4
85	67	Lancaster,	.	9,901 92	415	23 86.0	57	67	Barre,	276	25 33.7
64	68	Holliston,	.	9,700 11	409	23 71.6	97	68	Groton,	397	25 32.4
185	69	Brewster,	.	3,006 99	127	23 67.7	61	69	Winthrop,	963	25 16.8
39	70	Petersham,	.	2,599 42	111	23 41.8	55	70	Southborough,	285	25 04.9
105	71	Lenox,	.	13,011 96	536	23 40.2	72	71	Dalton,	543	25 04.9
155	72	Burlington,	.	1,566 54	67	23 38.1	113	72	Needham,	678	24 92.7
72	73	Bedford,	.	4,458 61	191	23 34.3	48	73	Abington,	702	24 89.9
32	74	Shelburne,	.	5,085 05	218	23 32.5	94	74	Walpole,	570	24 69.3
69	75	Bourne,	.	7,299 62	315	23 17.3	75	75	Ware,	1,015	24 64.4
62	76	Southborough,	.	7,139 24	309	23 10.4	120	76	Revere,	1,954	24 63.3
50	77	Medfield,	.	5,253 94	228	23 04.3	98	77	Reading,	852	24 55.6
70	78	Weymouth,	.	44,348 27	1,947	22 77.7	69	78	Tisbury,	134	24 44.5
67	79	Hopkinton,	.	9,780 87	430	22 74.6	74	79	Acton,	279	24 32.8
147	80	Leicester,	.	12,900 52	568	22 71.2	64	80	Lawrence,	6,836	24 26.1
77	81	Mendon,	.	3,085 76	136	22 68.9	190	81	Southbridge,	946	24 24.0
49	82	Upton,	.	6,328 01	280	22 60.0	117	82	Greenfield,	1,358	24 18.8
123	83	Scituate,	.	8,088 22	360	22 46.7	96	83	Frammingham,	1,969	24 15.8
71	84	Plymouth,	.	33,031 80	1,471	22 45.5	73	84	Sandwich,	214	24 11.0
110	85	Everett,	.	98,320 06	4,381	22 44.2	71	85	Bourne,	304	24 01.1
46	86	Orleans,	.	3,958 04	177	22 36.1	125	86	Norfolk,	135	23 87.7
66	87	Sunderland,	.	2,468 13	111	22 23.5	103	87	Brewster,	126	23 86.5
84	88	Barre,	.	6,993 19	316	22 13.0	58	88	Wayland,	429	23 84.8
92	89	Stoneham,	.	21,129 05	956	22 10.1	92	89	North Adams,	2,932	23 73.7
78	90	Westfield,	.	45,499 57	2,068	22 00.1	67	90	Taunton,	4,360	23 50.9
138	91	Dunstable,	.	1,276 00	58	22 00.0	76	91	Sunderland,	105	23 50.6
224	92	Marion,	.	2,807 01	128	21 82.9	121	92	Marion,	120	23 39.1
37	93	Bridgewater,	.	14,739 40	673	21 80.1	105	93	Andover,	990	23 31.1
59	94	Hanover,	.	6,374 18	292	21 82.9	114	94	Scituate,	347	23 30.8

163	95	Beverly, . . .	49,238 21	2,273	21 66.2	84	95	Franklin, . . .	597	23 13.5
103	96	North Reading, . . .	2,892 61	134	21 58.6	62	96	Shelburne, . . .	221	23 00.9
87	97	Shrewsbury, . . .	5,243 46	243	21 57.8	138	97	Lenox, . . .	566	22 98.9
111	98	Hyde Park, . . .	45,745 53	2,126	21 51.7	130	98	Amherst, . . .	694	22 96.3
112	99	Natick, . . .	34,400 45	1,603	21 51.5	63	99	Brookton, . . .	6,069	22 91.1
113	100	Foxborough, . . .	11,382 05	532	21 39.4	278	100	Edgartown, . . .	138	22 82.8
27	101	Easton, . . .	19,482 24	912	21 36.2	267	101	Carver, . . .	158	22 82.7
145	102	Bosford, . . .	2,145 95	96	21 31.1	133	102	Everett, . . .	4,311	22 80.6
161	103	Nantucket, . . .	6,984 37	329	21 23.9	111	103	Montague, . . .	1,029	22 74.8
242	104	Carver, . . .	3,606 76	170	21 21.6	108	104	Plymouth, . . .	1,452	22 74.2
129	105	Wakefield, . . .	36,727 86	1,732	21 20.5	196	105	Beverly, . . .	2,168	22 71.1
104	106	Haverhill, . . .	124,410 63	5,886	21 13.6	49	106	Merrimac, . . .	404	22 62.7
22	107	Wellsfleet, . . .	2,895 45	137	21 13.4	248	107	Sharon, . . .	259	22 62.1
152	108	Hudson, . . .	18,911 10	895	21 12.9	209	108	New Braintree, . . .	68	22 62.1
132	109	Mouseton, . . .	11,865 28	563	21 07.5	227	109	West Fishbury, . . .	47	22 56.3
176	110	Saugus, . . .	19,981 89	951	21 01.1	79	110	Yarmouth, . . .	199	22 56.2
141	111	North Attleborough, . . .	25,762 94	1,227	20 99.6	165	111	Westborough, . . .	696	22 51.1
42	112	West Boylston, . . .	9,740 28	465	20 94.6	155	112	Leicester, . . .	574	22 47.4
95	113	Leominster, . . .	40,144 29	1,918	20 93.0	170	113	Dunstable, . . .	57	22 38.5
143	114	Lowell, . . .	301,797 23	14,449	20 88.7	106	114	Quincy, . . .	4,405	22 36.7
86	115	Middleborough, . . .	21,783 48	1,043	20 88.5	53	115	Sherborn, . . .	142	22 27.3
116	116	Norwell, . . .	5,116 42	245	20 88.3	148	116	Grafton, . . .	790	22 25.2
54	117	Dover, . . .	2,626 34	126	20 84.3	207	117	Hamilton, . . .	203	22 24.5
124	118	South Hadley, . . .	16,424 64	790	20 79.0	124	118	Marlborough, . . .	2,434	22 22.1
63	119	Brookton, . . .	139,049 68	6,700	20 75.3	81	119	Norton, . . .	212	22 20.4
102	120	Middleton, . . .	2,640 60	128	20 69.6	192	120	Wenham, . . .	111	22 18.0
218	121	Westminster, . . .	3,822 95	185	20 66.4	128	121	Athol, . . .	938	22 16.5
231	122	West Newbury, . . .	4,664 00	226	20 63.7	109	122	Fall River, . . .	12,649	22 15.1
116	123	Narberhead, . . .	21,620 94	1,049	20 61.1	123	123	North Andover, . . .	703	22 13.2
175	124	Georgetown, . . .	6,159 24	299	20 59.9	87	124	Holliston, . . .	439	22 09.5
117	125	Great Barrington, . . .	16,794 69	819	20 50.6	284	125	Sturbridge, . . .	278	22 07.8
118	126	Taunton, . . .	102,499 44	5,021	20 41.4	77	126	Ashland, . . .	317	22 07.7
202	127	Sharon, . . .	5,858 95	287	20 41.4	187	127	Rowe, . . .	60	22 06.4
96	128	Canton, . . .	16,952 49	833	20 35.1	149	128	Mendon, . . .	140	22 04.1
108	129	North Andover, . . .	15,558 85	767	20 28.5	186	129	Duxbury, . . .	239	22 03.4
134	130	Chatham, . . .	4,854 57	241	20 14.3	279	130	Dartmouth, . . .	473	21 97.7
159	131	Northborough, . . .	7,504 23	373	20 11.8	119	131	Stonham, . . .	962	21 96.3
113	132	Waltham, . . .	76,705 80	3,832	20 01.7	181	132	Chicopee, . . .	2,154	21 95.7
164	133	Dracut, . . .	10,271 12	514	19 98.2	154	133	Wilington, . . .	264	21 89.4
157	134	Athol, . . .	20,791 09	1,042	19 95.3	146	134	Braintree, . . .	1,080	21 86.8

Table showing the comparative amounts of money raised by taxation, etc. — Continued.

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215	135	135	220	West Brookfield, . . .	\$4,385 20	220	\$19 93.2	249	135	West Brookfield, . . .	201	\$21 81.6
180	136	136	9,228	Holyoke, . . .	183,845 35	9,228	19 92.2	203	136	Williamstown, . . .	804	21 78.5
181	137	137	508	Chelmsford, . . .	11,880 73	508	19 88.4	139	137	Medford, . . .	242	21 71.0
106	138	138	4,208 67	Cottage City, . . .	4,208 67	212	19 85.2	141	138	West Boylston, . . .	449	21 69.3
135	139	139	137	Lynnfield, . . .	2,718 38	137	19 84.2	271	139	West Newbury, . . .	215	21 69.3
136	140	140	6,079	Salem, . . .	120,549 90	6,079	19 83.0	221	140	Attleborough, . . .	1,646	21 68.5
149	141	141	964	Rockland, . . .	19,105 22	964	19 81.8	107	141	Chelsea, . . .	5,057	21 57.1
178	142	142	126	Granby, . . .	2,491 87	126	19 77.6	127	142	Weymouth, . . .	2,057	21 55.4
122	143	143	267	Townsend, . . .	5,276 24	267	19 76.1	131	143	Leominster, . . .	1,869	21 47.9
126	144	144	267	Duxbury, . . .	5,266 23	267	19 72.3	46	144	Wellesley, . . .	135	21 44.7
182	145	145	3,035	Northampton, . . .	59,838 42	3,035	19 71.6	159	145	Norwell, . . .	239	21 40.7
130	146	146	4,989	Quincy, . . .	98,528 72	4,989	19 70.9	118	146	Shrewsbury, . . .	245	21 40.1
61	147	147	185	Sterling, . . .	3,642 31	185	19 68.8	126	147	Amesbury, . . .	1,040	21 25.2
230	148	148	1,190	Montague, . . .	23,407 70	1,190	19 67.0	216	148	Methuen, . . .	1,114	21 24.6
154	149	149	999	Orange, . . .	19,594 04	999	19 61.3	129	149	Hanover, . . .	302	21 10.6
76	150	150	1,080	Whitman, . . .	21,109 22	1,080	19 57.9	60	150	Orleans, . . .	188	21 05.3
205	151	151	686	Ipswich, . . .	13,418 19	686	19 56.0	116	151	Hopkinton, . . .	465	21 03.4
213	152	152	202	Newbury, . . .	3,945 16	202	19 53.0	175	152	Topsfield, . . .	146	21 01.1
190	153	153	5,591	Chelsea, . . .	109,086 69	5,591	19 51.1	145	153	Peabody, . . .	1,679	20 99.3
140	154	154	5,679	Fitchburg, . . .	110,732 37	5,679	19 49.8	31	154	Easton, . . .	928	20 99.3
191	155	155	1,730	Gardner, . . .	33,675 77	1,730	19 46.5	169	155	North Attleborough, . . .	1,228	20 97.9
128	156	156	333	Kingston, . . .	6,474 23	333	19 44.2	167	156	Wakefield, . . .	1,752	20 96.3
107	157	157	1,045	Norwood, . . .	20,310 47	1,045	19 43.5	143	157	North Reading, . . .	138	20 96.0
243	158	158	316	Sturbridge, . . .	6,137 72	316	19 42.3	137	158	Foxborough, . . .	545	20 88.4
244	159	159	537	Dartmouth, . . .	10,395 40	537	19 35.8	44	159	Deerfield, . . .	262	20 87.3
156	160	160	905	Williamstown, . . .	17,515 34	905	19 35.3	179	160	Middleborough, . . .	1,045	20 84.5
172	161	161	159	Topsfield, . . .	3,067 71	159	19 29.3	180	161	Stoughton, . . .	705	20 71.7
214	162	162	120	Bolton, . . .	2,307 94	120	19 23.2	99	162	Upton, . . .	306	20 67.9
121	163	163	704	Pepperell, . . .	13,520 30	704	19 20.4	223	163	Milford, . . .	1,334	20 66.1
186	164	164	1,403	West Springfield, . . .	26,909 24	1,403	19 17.9	195	164	Tewksbury, . . .	401	20 65.5
183	165	165	921	Grafton, . . .	17,579 12	921	19 08.6	226	165	Billerica, . . .	428	20 55.6

## SCHOOL RETURNS.

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127	166	Danvers, . . . . .	26,664 73	1,398	19 07.3	162	166	Lee, . . . . .	514	20 54.1
240	167	Dennis, . . . . .	7,022 86	369	19 03.2	82	167	Bridgewater, . . . . .	720	20 47.1
199	168	Fairhaven, . . . . .	10,715 57	563	19 03.2	171	168	Bolton, . . . . .	113	20 42.4
206	169	Peabody, . . . . .	35,248 21	1,870	18 84.9	158	169	Warren, . . . . .	698	20 41.0
119	170	Norton, . . . . .	4,707 43	251	18 75.4	188	170	Gardner, . . . . .	1,650	20 40.9
192	171	Medway, . . . . .	8,395 69	448	18 74.0	166	171	Woburn, . . . . .	2,647	20 40.6
188	172	Holbrook, . . . . .	7,650 03	409	18 70.4	135	172	Palmer, . . . . .	1,050	20 40.4
142	173	Deerfield, . . . . .	27,562 61	1,474	18 69.9	155	173	Wilbraham, . . . . .	222	20 38.4
34	174	Milford, . . . . .	5,468 40	293	18 66.3	255	174	South Hadley, . . . . .	810	20 27.7
158	175	Billerica, . . . . .	8,798 17	473	18 60.0	199	175	Monson, . . . . .	588	20 17.9
81	176	Warren, . . . . .	14,246 70	767	18 57.4	178	176	Newburyport, . . . . .	1,557	20 17.2
201	177	Palmer, . . . . .	21,425 46	1,155	18 55.0	161	177	Northbridge, . . . . .	1,112	20 13.2
193	178	East Bridgewater, . . . . .	9,220 83	498	18 51.5	246	178	Dighton, . . . . .	236	20 12.6
281	179	Wenham, . . . . .	2,462 02	133	18 51.1	160	179	Westford, . . . . .	402	20 10.9
209	180	Pittsfield, . . . . .	76,246 81	4,119	18 51.1	222	180	Clinton, . . . . .	1,949	20 04.1
198	181	Attleborough, . . . . .	33,693 71	1,930	18 49.4	174	181	Northborough, . . . . .	375	20 01.1
257	182	Spencer, . . . . .	30,723 09	1,663	18 47.4	134	182	Townsend, . . . . .	264	19 98.5
151	183	Northbridge, . . . . .	22,387 53	1,213	18 45.6	164	183	Ipswich, . . . . .	672	19 96.7
73	184	Westford, . . . . .	8,084 04	438	18 45.6	212	184	Hudson, . . . . .	949	19 92.8
234	185	Ashburham, . . . . .	5,781 73	314	18 41.3	228	185	Saugus, . . . . .	1,004	19 90.2
144	186	Wilmington, . . . . .	5,780 11	315	18 34.8	189	186	Nantucket, . . . . .	351	19 89.8
167	187	Gloucester, . . . . .	73,519 85	4,017	18 30.2	152	187	West Bridgewater, . . . . .	257	19 83.1
196	188	Paxton, . . . . .	1,313 52	72	18 24.3	204	188	Pittsfield, . . . . .	3,864	19 73.2
235	189	Marlborough, . . . . .	54,086 38	2,968	18 22.3	200	189	Uxbridge, . . . . .	560	19 72.5
139	190	Easthampton, . . . . .	15,575 23	857	18 17.4	193	190	Kingston, . . . . .	329	19 67.8
174	191	Uxbridge, . . . . .	11,046 54	608	18 16.8	194	191	Natick, . . . . .	1,757	19 63.0
97	192	Hubbardston, . . . . .	3,605 25	199	18 12.1	238	192	Northfield, . . . . .	217	19 59.3
170	193	Franklin, . . . . .	13,811 92	763	18 10.2	163	193	Whitman, . . . . .	1,078	19 58.1
210	194	New Bedford, . . . . .	192,025 82	10,716	17 91.8	245	194	Washington, . . . . .	57	19 51.0
169	195	Mansfield, . . . . .	11,927 04	667	17 85.1	177	195	West Springfield, . . . . .	1,381	19 48.5
184	196	Northfield, . . . . .	4,251 81	238	17 86.4	142	196	North Brookfield, . . . . .	628	19 47.3
241	197	Methuen, . . . . .	23,668 63	1,340	17 66.3	102	197	Hardwick, . . . . .	357	19 43.8
194	198	Holden, . . . . .	8,745 93	496	17 63.2	236	198	Dudley, . . . . .	353	19 37.2
204	199	Ware, . . . . .	25,013 89	1,421	17 60.3	251	199	Brookfield, . . . . .	498	19 21.2
179	200	West Bridgewater, . . . . .	5,096 61	291	17 61.4	198	200	Holden, . . . . .	456	19 17.9
250	201	Maynard, . . . . .	9,062 52	521	17 51.9	176	201	Norwood, . . . . .	1,060	19 16.0
229	202	Hamilton, . . . . .	4,515 84	260	17 39.4	173	202	Pepperell, . . . . .	707	19 12.3
189	203	Hanson, . . . . .	3,538 04	205	17 36.8	151	203	Danvers, . . . . .	1,399	19 06.9
245	204	Lunenburg, . . . . .	3,729 12	215	17 34.4	211	204	Fairhaven, . . . . .	563	19 03.2

Table showing the comparative amounts of money raised by taxation, etc. — Continued.

	TOWNS AND CITIES.		No. of children in town or city between 5 and 15 years of age, Sept. 1, 1898.	Amount raised by taxation and ex- pended for the support of public schools.	Amount raised and expended per child, as determined by the number of chil- dren between 5 and 15.		TOWNS AND CITIES.		Average mem- bership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
	For 1898-1899.	For 1899-1900.			For 1898-1899.	For 1899-1900.				
200				\$4,749 93	\$17 33.5	197	Great Barrington,		891	\$18 84.9
207			274	2,316 66	17 28.8	287	Lanesburg,		198	18 83.3
211			134	3,525 86	17 19.9	110	Ludlow,		412	18 78.5
208			205	54,016 87	17 16.4	182	Easthampton,		830	18 76.5
177			3,147	9,567 75	17 14.6	150	Hanson,		190	18 72.6
286			558	5,552 21	16 92.7	88	Sterling,		195	18 67.8
252			328	1,538 29	16 90.4	254	Boylston,		90	18 67.0
252			91	1,538 29	16 84.7	220	East Bridgewater,		494	18 66.5
246			410	6,924 03	16 82.9	214	Newbury,		212	18 60.9
48			258	4,342 08	16 80.0	210	Chatham,		261	18 59.9
239			493	8,282 85	16 74.9	112	Hubbardston,		195	18 49.3
236			353	5,912 64	16 68.2	310	Somerset,		331	18 46.5
125			624	10,409 62	16 63.2	252	Adams,		1,855	18 41.8
171			193	3,210 12	16 58.6	275	Orange,		1,069	18 32.9
262			2,355	39,060 07	16 51.0	242	Oxford,		403	18 28.7
216			10,045	165,849 39	16 49.8	231	Millbury,		715	18 22.2
109			149	2,458 29	16 33.6	225	Carlisle,		65	18 16.8
228			277	4,525 30	16 30.3	222	Westport,		394	18 14.4
137			194	3,162 93	16 12.9	223	Swansea,		240	18 09.2
222			4,315	69,598 00	16 09.4	93	Agawam,		383	18 06.9
232			656	10,558 29	16 04.0	229	Georgetown,		342	18 00.9
153			202	3,240 20	15 91.2	218	Holbrook,		425	18 00.0
261			225	3,580 24	15 85.1	206	Hatfield,		199	17 99.1
293			106	1,680 30	15 84.1	253	Rockland,		1,062	17 98.9
301			135	2,138 54	15 82.8	280	Westminster,		213	17 94.8
254			749	11,855 35	15 82.4	257	Ashby,		130	17 82.0
233			923	14,605 93	15 78.0	241	Marblehead,		1,214	17 80.0
222			45	710 12	15 75.2	232	Mansfield,		673	17 72.2
247			388	6,112 07	15 72.5	224	Hampden,		89	17 69.2
208			246	3,868 55	15 71.6	230	Cheshire,		182	17 63.8
270			829	13,029 10		234				



## SCHOOL RETURNS.

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263	235	Adams,	2,179	15 68.1	240	235	Gloucester,	4,169	17 63.4
237	236	Rowe,	85	15 57.3	233	236	Harwich,	339	17 44.1
217	237	Avon,	269	15 48.4	272	237	Medway,	496	16 92.6
220	238	Ayer,	473	15 47.5	104	238	Raynham,	223	16 88.2
277	239	Chicopee,	3,072	15 39.5	269	239	Sheffield,	271	16 84.8
221	240	Oxford,	486	15 16.4	285	240	Groveland,	412	16 80.5
165	241	Blackstone,	13,589	15 11.5	258	241	Chelmsford,	708	16 79.4
195	242	Wareham,	899	15 01.6	263	242	Stow,	122	16 76.0
275	243	Boxborough,	594	15 00.0	268	243	Douglas,	332	16 72.3
295	244	Agawam,	57	15 00.0	276	244	Ayer,	338	16 71.2
238	245	Templeton,	462	14 97.9	147	245	Phillipston,	55	16 66.0
225	246	Hadley,	587	14 94.5	308	246	Granby,	150	16 61.2
268	247	Sheffield,	226	14 93.4	260	247	Dennis,	423	16 60.2
290	248	Carlisle,	306	14 92.1	144	248	Sutton,	410	16 42.3
148	249	Raynham,	80	14 76.2	286	249	Maynard,	552	16 41.7
219	250	Charlemont,	256	14 70.6	201	250	Buckland,	247	16 41.0
173	251	Hamden,	173	14 60.8	259	251	Gill,	98	16 39.7
280	252	Fall River,	108	14 57.6	213	252	Wareham,	544	16 39.6
166	253	Mills,	19,261	14 54.7	291	253	Ashburnham,	354	16 33.2
269	254	Colrain,	231	14 49.7	301	254	Rockport,	708	16 27.3
333	255	Erving,	282	14 49.0	322	255	Truro,	132	16 20.1
265	256	Washington,	188	14 46.7	239	256	Lanesborough,	115	16 14.1
253	257	Stow,	77	14 44.2	239	257	Salisbury,	214	16 13.9
274	258	Rutland,	142	14 40.0	289	258	Brimfield,	130	16 09.4
197	259	Buckland,	222	14 35.7	256	259	Holland,	14	16 07.1
93	260	Whately,	284	14 27.2	191	260	Randolph,	648	16 06.4
187	261	Russell,	84	14 06.7	305	261	Rutland,	199	16 01.6
260	262	Rockport,	127	13 96.3	300	262	Lakeville,	115	15 94.9
336	263	Dana,	826	13 94.8	261	263	Halifax,	63	15 91.4
150	264	Phillipston,	105	13 92.9	296	264	Provincetown,	746	15 89.1
272	265	Newburyport,	66	13 88.3	205	265	Bellingham,	258	15 87.0
268	266	Essex,	2,269	13 84.2	234	266	Mount Washington,	24	15 81.9
65	267	Bellingham,	304	13 76.3	284	267	Mills,	213	15 72.2
267	268	Salisbury,	298	13 73.9	184	268	Greenwich,	62	15 68.3
251	269	Ludlow,	252	13 70.5	235	269	Rochester,	132	15 48.6
259	270	Granville,	565	13 69.8	330	270	Auburn,	259	15 43.9
291	271	Amesbury,	181	13 63.7	293	271	Pembroke,	167	15 40.5
249	272	Greenwich,	1,629	13 56.8	288	272	Ashfield,	217	15 36.4
323	273	Lakeville,	72	13 50.5	217	273	Winchendon,	160	15 35.7
			136	13 48.6	318			792	

*Table showing the comparative amounts of money raised by taxation, etc. — Continued.*

TOWNS AND CITIES.		Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1889.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1889-1890.	For 1889-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
255	Pembroke, . . . . .	\$2,572 72	191	\$13 46.9	283	274	Seekonk, . . . . .	188	\$15 31.4
300	Gill, . . . . .	1,606 95	120	13 39.1	294	275	Templeton, . . . . .	573	15 31.0
308	Chilmark, . . . . .	534 75	40	13 36.8	277	276	Renoboth, . . . . .	251	15 29.3
277	Winchendon, . . . . .	12,162 97	913	13 32.1	264	277	Hinsdale, . . . . .	253	15 29.0
203	Wilmington, . . . . .	718 76	54	13 31.0	281	278	Colrain, . . . . .	269	15 19.0
287	Williamsburg, . . . . .	5,047 35	380	13 28.2	136	279	Blackstone, . . . . .	895	15 18.3
273	Westport, . . . . .	7,148 89	539	13 26.3	290	280	Charlton, . . . . .	275	15 16.1
350	Mount Washington, . . . . .	379 67	30	12 65.5	243	281	Hadley, . . . . .	223	15 13.5
284	North Brookfield, . . . . .	12,229 30	968	12 63.3	344	282	Hawley, . . . . .	60	15 02.3
248	Hardwick, . . . . .	6,939 51	563	12 54.8	334	283	Berlin, . . . . .	119	14 99.9
328	Rochester, . . . . .	2,044 26	164	12 46.5	183	284	Russell, . . . . .	119	14 90.2
342	Hawley, . . . . .	901 40	73	12 45.7	314	285	Mashpee, . . . . .	56	14 80.6
283	Montgomery, . . . . .	608 59	49	12 42.0	86	286	Whately, . . . . .	80	14 77.1
297	Rowley, . . . . .	2,357 71	190	12 40.9	274	287	Boxborough, . . . . .	68	14 74.1
288	Halifax, . . . . .	1,002 60	81	12 37.7	309	288	Wendell, . . . . .	67	14 67.4
321	New Marlborough, . . . . .	2,535 33	205	12 36.7	172	289	Wilmington, . . . . .	49	14 66.8
399	Hancock, . . . . .	978 38	79	12 35.7	303	290	Acushnet, . . . . .	154	14 59.8
311	Seekonk, . . . . .	2,879 13	233	12 35.6	140	291	Shirley, . . . . .	201	14 52.8
279	Brimfield, . . . . .	2,092 33	162	12 29.8	115	292	Shutesbury, . . . . .	44	14 51.8
306	Lanesborough, . . . . .	1,856 28	151	12 29.3	244	293	Chilmark, . . . . .	37	14 45.2
162	Shirley, . . . . .	2,920 23	238	12 26.9	273	294	Avon, . . . . .	289	14 41.2
292	Rehoboth, . . . . .	3,838 60	313	12 25.3	168	295	West Stockbridge, . . . . .	225	14 40.0
296	Charlton, . . . . .	4,169 46	341	12 22.7	306	296	Hancock, . . . . .	68	14 36.0
296	Acushnet, . . . . .	2,248 11	185	12 15.1	329	297	Erving, . . . . .	190	14 31.5
322	Warwick, . . . . .	1,379 30	114	12 09.9	320	298	New Marlborough, . . . . .	178	14 24.3
266	Eastham, . . . . .	900 00	75	12 00.0	270	299	Monroe, . . . . .	50	14 20.2
292	Freetown, . . . . .	2,686 72	224	11 99.4	345	300	Dana, . . . . .	104	14 06.3
301	Tolland, . . . . .	667 15	56	11 91.3	265	301	Eastham, . . . . .	64	14 06.2
264	Chesterfield, . . . . .	1,093 43	92	11 88.5	292	302	Rowley, . . . . .	170	13 86.8
302	Shutesbury, . . . . .	638 83	54	11 83.0	323	303	Essex, . . . . .	303	13 80.9

## SCHOOL RETURNS.

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331	304	Chester, . . . . .	3,052	89	261	11	69.6	325	304	Berkley, . . . . .	141	13	76.8
294	305	Mashpee, . . . . .	829	14	71	11	67.8	307	305	Williamsburg, . . . . .	368	13	71.5
309	306	Berkley, . . . . .	1,941	37	168	11	55.5	297	306	Chesterfield, . . . . .	80	13	66.7
343	307	Southwick, . . . . .	2,133	49	185	11	53.2	304	307	Becket, . . . . .	144	13	58.5
212	308	Blandford, . . . . .	1,894	96	165	11	48.4	319	308	Egremont, . . . . .	88	13	47.5
133	309	Oakham, . . . . .	1,141	75	100	11	41.7	312	309	Charlenton, . . . . .	188	13	44.3
312	310	Southbridge, . . . . .	22,931	88	2,018	11	36.3	317	310	Monterey, . . . . .	72	13	30.0
271	311	Auburn, . . . . .	3,998	86	352	11	36.0	208	311	Montgomery, . . . . .	46	13	23.0
317	312	Belchertown, . . . . .	4,599	21	1,587	11	35.6	215	312	Granville, . . . . .	188	13	12.9
341	313	Webster, . . . . .	17,731	47	1,587	11	17.2	326	313	Chester, . . . . .	234	13	04.6
285	314	New Salem, . . . . .	1,695	62	153	11	08.2	337	314	Freetown, . . . . .	208	12	91.6
320	315	East Longmeadow, . . . . .	3,676	99	333	11	04.2	266	315	Tyringham, . . . . .	50	12	85.6
318	316	Heath, . . . . .	1,023	37	93	11	01.0	90	316	Royalston, . . . . .	119	12	70.8
303	317	Leyden, . . . . .	723	18	66	10	95.7	343	317	Southwick, . . . . .	171	12	47.6
332	318	Berlin, . . . . .	1,784	94	164	10	88.3	311	318	Enfield, . . . . .	175	12	46.8
335	319	Egremont, . . . . .	1,185	87	109	10	87.9	282	319	Blandford, . . . . .	154	12	30.4
319	320	Sutton, . . . . .	6,733	73	620	10	86.0	316	320	East Longmeadow, . . . . .	299	12	29.7
340	321	Southampton, . . . . .	2,121	84	196	10	82.3	262	321	Conway, . . . . .	287	12	28.5
315	322	Huntington, . . . . .	3,208	51	297	10	80.3	219	322	Oakham, . . . . .	93	12	27.6
131	323	Royalston, . . . . .	1,512	26	141	10	72.5	302	323	Leyden, . . . . .	59	12	25.7
226	324	Windsor, . . . . .	941	80	88	10	70.2	335	324	Prescott, . . . . .	58	12	15.6
307	325	Becket, . . . . .	1,956	88	184	10	63.2	324	325	Richmond, . . . . .	123	12	06.7
288	326	Enfield, . . . . .	2,182	00	206	10	59.2	333	326	Southampton, . . . . .	180	11	78.5
282	327	Prescott, . . . . .	705	05	67	10	52.3	332	327	Belchertown, . . . . .	394	11	67.3
338	328	Dudley, . . . . .	6,838	42	671	10	19.1	237	328	Windsor, . . . . .	82	11	48.5
351	329	Cummington, . . . . .	1,347	17	134	10	05.2	315	329	Westhampton, . . . . .	93	11	47.3
304	330	Tyringham, . . . . .	642	82	64	10	04.4	331	330	Huntington, . . . . .	281	11	41.8
313	331	Richmond, . . . . .	1,481	30	148	10	02.9	340	331	Warwick, . . . . .	121	11	39.9
310	332	Monterey, . . . . .	957	63	96	9	97.5	336	332	New Salem, . . . . .	151	11	22.9
326	333	Westhampton, . . . . .	1,067	07	108	9	88.0	339	333	Heath, . . . . .	93	11	01.0
345	334	Wendell, . . . . .	983	16	100	9	83.1	321	334	Tolland, . . . . .	62	10	76.0
276	335	Florida, . . . . .	901	22	93	9	69.0	298	335	Wales, . . . . .	116	10	73.5
168	336	Otis, . . . . .	566	85	60	9	44.7	351	336	Cummington, . . . . .	126	10	69.1
316	337	Holland, . . . . .	225	00	25	9	00.0	232	337	Florida, . . . . .	86	10	47.9
314	338	Wales, . . . . .	1,245	26	141	8	83.1	83	338	Barnardston, . . . . .	94	9	66.5
327	339	Sandisfield, . . . . .	914	79	104	8	79.6	153	339	Otis, . . . . .	60	9	44.7
146	340	Barnardston, . . . . .	908	56	109	8	33.5	327	340	Sandisfield, . . . . .	101	9	05.6
349	341	Gosnold, . . . . .	171	15	21	8	15.0	350	341	Gosnold, . . . . .	20	8	55.7
325	342	Savoy, . . . . .	699	84	91	7	69.0	342	342	Leverett, . . . . .	105	8	53.8

Table showing the comparative amounts of money raised by taxation, etc. — Concluded.

	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
339	343	343	Worthington, . . .	\$898 90	124	\$7 24.9	313	343	Alford, . . .	29	\$8 27.0
344	344	344	Leverett, . . .	896 54	124	7 23.0	352	344	Clarksburg, . . .	166	8 09.1
347	345	345	Plainfield, . . .	500 00	77	6 49.3	336	345	Savoy, . . .	37	8 04.4
346	346	346	Pelham, . . .	683 01	107	6 38.3	346	346	Pelham, . . .	85	8 03.5
330	347	347	Alford, . . .	239 83	39	6 14.9	247	347	Peru, . . .	37	8 02.0
337	348	348	Peru, . . .	296 75	52	5 70.6	349	348	Plainfield, . . .	66	7 57.5
348	349	349	Goshen, . . .	363 29	65	5 58.9	341	349	Worthington, . . .	121	7 42.8
324	350	350	Middlefield, . . .	542 67	98	5 53.7	348	350	Goshen, . . .	50	7 26.5
334	351	351	New Ashford, . . .	110 08	21	5 24.1	328	351	New Ashford, . . .	16	6 88.0
352	352	352	Clarksburg, . . .	1,343 13	259	5 18.5	347	352	Middlefield, . . .	106	5 11.8
353	353	353	Gay Head, . . .	115 46	35	3 29.8	353	353	Gay Head, . . .	36	3 20.7

## GRADUATED TAXATION TABLE.

Table showing for the several towns and cities of the State the comparative amounts of money raised by taxation and expended for the support of public schools per child, as determined (1) by the number of children between five and fifteen years of age in the town or city and (2) by the number of children in the average membership of the public schools.

## BARNSTABLE COUNTY.

For 1898-1899.		For 1899-1900.		TOWNS AND CITIES.		TOWNS AND CITIES.		Average membership of the public schools.		Amount raised and expended for each child in the average membership of the public schools.	
1	2	3	4	5	6	7	8	9	10	11	12
For 1898-1899.	For 1899-1900.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised by taxation and expended for the support of public schools.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.		
1	2	3	\$15,861	\$35 48.3	447	1	Falmouth, .	399	\$39 75.2		
2	3	95	19,388	31 68.1	612	2	Barnstable, .	688	28 18.1		
3	4	00	4,488	25 35.5	177	3	Sandwich, .	214	24 11.0		
4	5	63	5,159	24 56.9	210	4	Bourne, .	304	24 01.1		
5	6	99	3,006	23 67.7	127	5	Brewster, .	126	23 86.5		
6	7	62	7,299	23 17.3	315	6	Yarmouth, .	199	22 55.2		
7	8	04	3,958	22 36.1	177	7	Wellfleet, .	135	21 44.7		
8	9	45	2,895	21 13.4	187	8	Orleans, .	188	21 05.3		
9	10	57	4,854	20 14.3	241	9	Chatham, .	261	18 59.9		
10	11	86	7,022	19 03.2	369	10	Dennis, .	339	17 44.1		
11	12	64	5,912	16 74.9	353	11	Harwich, .	423	16 60.2		
12	13	54	2,138	15 84.1	135	12	Truro, .	132	16 20.1		
13	14	35	11,855	15 82.8	749	13	Provincetown, .	746	15 89.1		
14	15	00	900	12 00.0	75	14	Mashpee, .	56	14 80.6		
15		14	829	11 67.8	71	15	Eastham, .	64	14 06.2		

# BOARD OF EDUCATION.

## BERKSHIRE COUNTY.

For 1898-1899.	TOWNS AND CITIES.	Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
1	Dalton, . . . . .	\$13,601 79	523	\$26 00.7	1	1	Stockbridge, . . . . .	382	\$26 61.0
2	Stockbridge, . . . . .	10,165 34	394	25 80.0	2	2	Dalton, . . . . .	543	25 04.9
3	Lenox, . . . . .	13,011 96	556	23 40.2	3	3	North Adams, . . . . .	2,932	23 73.7
4	Great Barrington, . . . . .	16,794 69	819	20 50.6	4	4	Lenox, . . . . .	866	22 98.9
5	Williamstown, . . . . .	17,515 34	905	19 35.3	5	5	Williamstown, . . . . .	804	21 78.5
6	Pittsfield, . . . . .	76,246 81	4,119	18 51.1	6	6	Lee, . . . . .	514	20 54.1
7	Cheshire, . . . . .	3,210 12	193	16 63.2	7	7	Pittsfield, . . . . .	3,864	19 73.2
8	North Adams, . . . . .	69,598 00	4,315	16 12.9	8	8	Washington, . . . . .	87	19 51.0
9	Lee, . . . . .	10,568 29	656	16 09.4	9	9	Great Barrington, . . . . .	891	18 84.9
10	West Stockbridge, . . . . .	3,240 20	202	16 04.0	10	10	Adams, . . . . .	1,855	18 41.8
11	Hinsdale, . . . . .	3,868 55	246	15 72.5	11	11	Cheshire, . . . . .	182	17 63.8
12	Adams, . . . . .	34,167 10	2,179	15 68.1	12	12	Sheffield, . . . . .	271	16 84.8
13	Sheffield, . . . . .	4,565 86	306	14 92.1	13	13	Lanesborough, . . . . .	115	16 14.1
14	Washington, . . . . .	1,113 10	77	14 44.2	14	14	Mount Washington, . . . . .	24	15 81.9
15	Mount Washington, . . . . .	379 67	30	12 65.5	15	15	Hinsdale, . . . . .	253	15 29.0
16	New Marlborough, . . . . .	2,535 33	205	12 36.7	16	16	West Stockbridge, . . . . .	225	14 40.0
17	Hancock, . . . . .	1,976 38	79	12 35.7	17	17	Hancock, . . . . .	68	14 36.0
18	Lanesborough, . . . . .	1,856 28	151	12 29.3	18	18	New Marlborough, . . . . .	178	14 24.3
19	Egremont, . . . . .	1,185 87	109	10 87.9	19	19	Becket, . . . . .	144	13 58.5
20	Windsor, . . . . .	941 80	88	10 70.2	20	20	Egremont, . . . . .	88	13 47.5
21	Becket, . . . . .	1,956 38	184	10 63.2	21	21	Monterey, . . . . .	72	13 30.0
22	Tyringham, . . . . .	642 82	64	10 04.4	22	22	Tyringham, . . . . .	50	12 85.6
23	Richmond, . . . . .	1,484 30	148	10 02.9	23	23	Richmond, . . . . .	123	12 06.7
24	Monterey, . . . . .	957 63	96	9 97.5	24	24	Windsor, . . . . .	82	11 48.5
25	Florida, . . . . .	901 22	93	9 69.0	25	25	Florida, . . . . .	86	10 47.9
26	Otis, . . . . .	366 86	60	9 44.7	26	26	Otis, . . . . .	60	9 44.7
27	Sandisfield, . . . . .	914 79	104	8 79.6	27	27	Sandisfield, . . . . .	101	9 05.6
28	Savoy, . . . . .	699 84	91	7 69.0	28	28	Alford, . . . . .	29	8 27.0
29	Alford, . . . . .	239 83	39	6 14.9	29	29	Clarksburg, . . . . .	166	8 09.1

## SCHOOL RETURNS.

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30	Peru, . . .	296 75	52	5 70.6	31	Savoy, . . .	87	8 04.4
28	31 New Ashford, . . .	110 08	21	5 24.1	17	Peru, . . .	37	8 02.0
32	32 Clarksburg, . . .	1,343 13	259	5 18.5	30	New Ashford, . . .	16	6 88.0

## BRISTOL COUNTY.

1	Easton, . . .	\$19,482 24	912	\$21 36.2	2	New Bedford, . . .	7,399	\$25 95.2
5	North Attleborough, . . .	25,762 91	1,227	20 99.6	3	Taunton, . . .	4,360	23 50.9
3	Taunton, . . .	102,499 44	5,021	20 41.4	4	Norton, . . .	212	22 20.4
12	Dartmouth, . . .	10,395 40	537	19 35.8	7	Fall River, . . .	12,649	22 15.1
9	Fairhaven, . . .	10,715 57	563	19 03.2	14	Dartmouth, . . .	473	21 97.7
4	Norton, . . .	4,707 43	251	18 75.4	10	Attleborough, . . .	1,646	21 68.5
8	Attleborough, . . .	35,693 71	1,930	18 49.4	1	Easton, . . .	928	20 99.3
11	New Bedford, . . .	192,025 82	10,716	17 91.8	8	North Attleborough, . . .	1,228	20 97.9
7	Mansfield, . . .	11,927 01	667	17 88.1	11	Dighton, . . .	236	20 12.6
10	Swansea, . . .	4,749 93	274	17 33.5	9	Fairhaven, . . .	563	19 03.2
2	Somerset, . . .	4,342 08	258	16 82.9	18	Somerset, . . .	331	18 46.5
13	Raynham, . . .	6,112 07	388	15 73.2	16	Westport, . . .	394	18 14.4
6	Swansea, . . .	3,761 80	256	14 70.6	5	Swansea, . . .	240	18 09.2
15	Fall River, . . .	280,194 44	19,261	14 54.7	12	Mansfield, . . .	673	17 72.2
14	Westport, . . .	7,148 89	539	13 26.3	6	Raynham, . . .	223	16 88.2
20	Seekonk, . . .	2,879 13	233	12 35.6	15	Seekonk, . . .	188	15 31.4
18	Rehoboth, . . .	3,838 60	313	12 26.3	13	Rehoboth, . . .	251	15 29.3
17	Acushnet, . . .	2,248 11	185	12 15.1	17	Acushnet, . . .	154	14 59.8
16	Freetown, . . .	2,686 72	224	11 99.4	19	Berkley, . . .	141	13 76.8
19	Berkley, . . .	1,941 37	168	11 55.5	20	Freetown, . . .	208	12 91.6

## DUKES COUNTY.

4	Edgartown, . . .	\$3,150 38	124	\$25 40.6	1	Cottage City, . . .	161	\$26 14.0
1	Tisbury, . . .	3,275 76	130	25 19.8	1	Tisbury, . . .	134	24 44.5
3	West Tisbury, . . .	1,060 50	43	24 66.2	2	Edgartown, . . .	138	22 82.8
2	Cottage City, . . .	4,208 67	212	19 85.2	3	West Tisbury, . . .	47	22 56.3
5	Chilmark, . . .	534 75	40	13 36.8	4	Chilmark, . . .	37	14 45.2
6	Gosnold, . . .	171 15	21	8 15.0	5	Gosnold, . . .	20	8 55.7
7	Gay Head, . . .	115 46	35	3 29.8	6	Gay Head, . . .	36	3 20.7

## ESSEX COUNTY.

		TOWNS AND CITIES.		Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.			For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.		Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.									TOWNS AND CITIES.			
1	1	Nahant, .	.	\$5,585 05	107	\$52 19.6	1	1	1	1	Nahant, .	.	110	\$50 77.3
2	2	Manchester, .	.	10,861 66	360	30 17.1	3	3	2	2	Manchester, .	.	351	30 94.4
4	3	Swampscott, .	.	17,240 57	653	26 40.2	10	8	3	3	Boxford, .	.	77	27 86.9
3	4	Merrimac, .	.	9,141 68	350	26 11.9	4	4	4	4	Salem, .	.	4,334	27 81.4
10	5	Andover, .	.	23,078 85	948	24 34.4	2	5	5	5	Middleton, .	.	95	27 79.5
5	6	Lynn, .	.	242,195 86	10,107	23 96.3	14	6	6	6	Lynnfield, .	.	98	27 73.8
15	7	Beverly, .	.	49,238 21	2,273	21 66.2	7	7	7	7	Swampscott, .	.	629	27 40.9
14	8	Boxford, .	.	2,145 95	96	21 31.1	5	8	8	8	Haverhill, .	.	4,660	26 69.7
7	9	Haverhill, .	.	124,410 63	5,886	21 13.6	9	9	9	9	Lynn, .	.	9,241	26 20.8
19	10	Saugus, .	.	19,981 89	951	21 01.1	8	10	10	10	Lawrence, .	.	6,836	24 26.1
6	11	Middleton, .	.	2,640 60	128	20 69.6	11	11	11	11	Andover, .	.	990	23 31.1
25	12	West Newbury, .	.	4,664 00	226	20 63.7	21	12	12	12	Beverly, .	.	2,168	22 71.1
9	13	Marblehead, .	.	21,620 94	1,049	20 61.1	6	13	13	13	Merrimac, .	.	404	22 62.7
18	14	Georgetown, .	.	6,159 24	299	20 59.9	22	14	14	14	Hamilton, .	.	203	22 24.5
8	15	North Andover, .	.	15,558 85	767	20 28.5	20	15	15	15	Wenham, .	.	111	22 18.0
12	16	Lynnfield, .	.	2,718 38	137	19 84.2	12	16	16	16	North Andover, .	.	703	22 13.2
13	17	Salem, .	.	120,549 90	6,079	19 83.0	29	17	17	17	West Newbury, .	.	215	21 69.3
20	18	Ipswich, .	.	13,418 19	686	19 56.0	13	18	18	18	Amesbury, .	.	1,040	21 25.2
22	19	Newbury, .	.	3,945 16	202	19 63.0	24	19	19	19	Methuen, .	.	1,114	21 24.6
17	20	Topsfield, .	.	3,067 71	159	19 29.3	18	20	20	20	Topsfield, .	.	146	21 01.1
11	21	Danvers, .	.	26,664 73	1,398	19 07.3	15	21	21	21	Peabody, .	.	1,679	20 99.3
21	22	Peabody, .	.	35,248 21	1,870	18 84.9	19	22	22	22	Newburyport, .	.	1,557	20 17.2
32	23	Wenham, .	.	2,462 02	133	18 51.1	17	23	23	23	Ipswich, .	.	672	19 96.7
16	24	Gloucester, .	.	73,519 85	4,017	18 30.2	25	24	24	24	Saugus, .	.	1,004	19 90.2
26	25	Methuen, .	.	23,668 63	1,340	17 66.3	16	25	25	25	Danvers, .	.	1,339	19 05.9
24	26	Hamilton, .	.	4,515 84	260	17 36.8	23	26	26	26	Newbury, .	.	212	18 60.9
27	27	Groveland, .	.	6,924 03	410	16 88.7	26	27	27	27	Georgetown, .	.	342	18 00.9
23	28	Lawrence, .	.	165,849 39	10,045	16 51.0	28	28	28	28	Marblehead, .	.	1,214	17 80.0
23	29	Rockport, .	.	11,521 57	826	13 94.8	27	29	29	29	Gloucester, .	.	4,169	17 63.4
31	30	Newburyport, .	.	31,408 91	2,269	13 84.2	30	30	30	30	Groveland, .	.	412	16 80.5



## SCHOOL RETURNS.

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30	31	Essex,	4,184 19	304	13 76.3	33	31	Rockport,	708	16 27.3
29	32	Salisbury,	3,453 79	252	13 70.5	32	32	Salisbury,	214	16 13.9
33	33	Amesbury,	22,102 93	1,029	13 56.8	31	33	Rowley,	170	13 86.8
34	34	Rowley,	2,357 71	190	12 40.9	34	34	Essex,	303	13 80.9

## FRANKLIN COUNTY.

4	1	Greenfield,	\$22,847 89	1,289	\$25 48.3	8	1	Greenfield,	1,358	\$24 18.8
1	2	Shelburne,	5,085 05	218	23 32.5	3	2	Sunderland,	105	23 50.6
3	3	Sunderland,	2,468 13	111	22 23.5	2	3	Shelburne,	221	23 00.9
15	4	Montague,	23,407 70	1,190	19 67.0	6	4	Montague,	1,029	22 74.8
9	5	Orange,	19,594 04	999	19 61.3	9	5	Rowe,	60	22 06.4
2	6	Deerfield,	6,468 40	293	18 66.3	1	6	Deerfield,	262	20 87.3
10	7	Northfield,	4,251 81	238	17 86.4	12	7	Northfield,	217	19 59.3
12	8	Conway,	3,525 86	205	17 19.9	16	8	Orange,	1,069	18 32.9
17	9	Ashfield,	2,438 29	149	16 49.8	10	9	Buckland,	247	16 41.0
14	10	Monroe,	710 12	45	15 78.0	13	10	Gill,	98	16 39.7
16	11	Rowe,	1,323 88	85	15 57.3	11	11	Ashfield,	160	15 36.4
13	12	Charlton,	2,527 34	173	14 60.8	17	12	Colrain,	269	15 19.0
17	13	Colrain,	4,086 34	282	14 49.0	26	13	Hawley,	60	15 02.3
23	14	Erving,	2,719 96	188	14 46.7	5	14	Whately,	80	14 77.1
11	15	Buckland,	4,053 38	284	14 27.2	19	15	Wendell,	67	14 67.4
6	16	Whately,	1,181 69	84	14 06.7	7	16	Shutesbury,	44	14 51.8
19	17	Gill,	1,606 95	120	13 39.1	21	17	Erving,	190	14 31.5
24	18	Hawley,	901 40	73	12 45.7	15	18	Monroe,	50	14 20.2
22	19	Warwick,	1,379 30	114	12 09.9	20	19	Charlton,	188	13 44.3
5	20	Shutesbury,	638 83	54	11 83.0	14	20	Conway,	287	12 28.5
18	21	New Salem,	1,695 62	153	11 08.2	18	21	Leyden,	59	12 25.7
21	22	Heath,	1,023 97	93	11 01.0	24	22	Warwick,	121	11 39.9
20	23	Leyden,	723 18	66	10 95.7	22	23	New Salem,	151	11 22.9
26	24	Wendell,	983 16	100	9 83.1	23	24	Heath,	93	11 01.0
8	25	Barnardston,	908 56	109	8 33.5	25	25	Barnardston,	94	9 66.5
25	26	Leverett,	896 54	124	7 23.0	25	26	Leverett,	105	8 53.8

## HAMPDEN COUNTY.

	For 1898-1899.	TOWNS AND CITIES.	Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
1	1	Springfield,	\$302,794.35	9,738	\$31.09.4	1	1	Holyoke,	5,407	\$34.00.1
2	2	Longmeadow,	3,188.73	133	23.97.5	2	2	Springfield,	9,072	33.37.6
3	3	Westfield,	45,489.57	2,068	22.00.1	3	3	Longmeadow,	97	32.87.3
4	4	Monson,	11,865.28	563	21.07.5	4	4	Westfield,	1,775	25.63.3
5	5	Holyoke,	183,845.35	9,228	19.92.2	5	5	Chicopee,	2,154	21.95.7
6	6	West Springfield,	26,909.24	1,403	19.17.9	6	6	Palmer,	1,050	20.40.4
7	7	Palmer,	21,425.46	1,155	18.55.0	7	7	Wilbraham,	222	20.38.4
8	8	Wilbraham,	4,525.30	277	16.33.6	8	8	Monson,	588	20.17.9
9	9	Chicopee,	47,295.47	3,072	15.39.5	9	9	West Springfield,	1,381	19.48.5
10	10	Agawam,	6,920.69	462	14.97.9	10	10	Ludlow,	412	18.78.5
11	11	Hampden,	1,574.63	108	14.57.6	11	11	Agawam,	383	18.06.9
12	12	Russell,	1,773.36	127	13.96.3	12	12	Hampden,	89	17.69.2
13	13	Ludlow,	7,739.63	565	13.69.8	13	13	Brimfield,	130	16.09.4
14	14	Granville,	2,468.33	181	13.63.7	14	14	Holland,	14	16.07.1
15	15	Montgomery,	608.59	49	12.42.0	15	15	Russell,	119	14.30.2
16	16	Brimfield,	2,092.33	162	12.29.8	16	16	Montgomery,	46	13.23.0
17	17	Tolland,	667.15	56	11.91.3	17	17	Granville,	188	13.12.9
18	18	Chester,	3,052.89	261	11.69.6	18	18	Chester,	234	13.04.6
19	19	Southwick,	2,133.49	185	11.53.2	19	19	Southwick,	171	12.47.6
20	20	Blandford,	1,894.96	165	11.48.4	20	20	Blandford,	154	12.30.4
21	21	East Longmeadow,	3,676.99	333	11.04.2	21	21	East Longmeadow,	299	12.29.7
22	22	Holland,	225.00	25	9.00.0	22	22	Tolland,	62	10.76.0
23	23	Wales,	1,245.26	141	8.83.1	23	23	Wales,	116	10.73.5

## HAMPSHIRE COUNTY.

1	1	Amherst,	\$15,947.00	642	\$24.83.9	2	1	Northampton,	2,326	\$25.72.5
2	2	South Hadley,	16,424.64	790	20.79.0	1	2	Ware,	1,015	24.64.4
4	3	Granby,	2,491.87	126	19.77.6	3	3	Amherst,	694	22.96.3

5	4	Northampton, . . . . .	59,838 42	3,035	19 71.6	8	4	South Hadley, . . . . .	810	20 27.7
6	5	Easthampton, . . . . .	15,575 23	857	18 17.4	4	5	Easthampton, . . . . .	830	18 76.5
7	6	Ware, . . . . .	25,013 89	1,421	17 60.3	5	6	Hatfield, . . . . .	199	17 99.1
8	7	Hatfield, . . . . .	3,880 24	225	15 91.2	11	7	Granby, . . . . .	150	16 61.2
9	8	Hadley, . . . . .	3,375 27	226	14 93.4	6	8	Greenwich, . . . . .	62	19 68.3
10	9	Greenwich, . . . . .	972 45	72	13 50.6	7	9	Hadley, . . . . .	223	15 13.5
11	10	Williamsburg, . . . . .	5,047 35	380	13 28.2	10	10	Williamsburg, . . . . .	368	13 71.5
12	11	Chesterfield, . . . . .	1,093 43	92	11 88.5	9	11	Chesterfield, . . . . .	80	13 66.7
13	12	Belchertown, . . . . .	4,599 21	405	11 85.6	12	12	Enfield, . . . . .	175	12 46.8
14	13	Southampton, . . . . .	2,121 34	196	10 82.3	17	13	Prescott, . . . . .	68	12 15.6
15	14	Huntington, . . . . .	3,208 51	297	10 80.3	16	14	Southampton, . . . . .	180	11 78.5
16	15	Enfield, . . . . .	2,182 00	206	10 59.2	15	15	Belchertown, . . . . .	394	11 67.3
17	16	Prescott, . . . . .	705 05	67	10 52.3	13	16	Westhampton, . . . . .	93	11 47.3
18	17	Cummington, . . . . .	1,347 17	134	10 05.2	14	17	Huntington, . . . . .	281	11 41.8
19	18	Westhampton, . . . . .	1,067 07	108	9 88.0	23	18	Cummington, . . . . .	126	10 69.1
20	19	Worthington, . . . . .	898 90	124	7 24.9	19	19	Pelham, . . . . .	85	8 03.5
21	20	Plainfield, . . . . .	500 00	77	6 49.3	22	20	Plainfield, . . . . .	66	7 57.5
22	21	Pelham, . . . . .	683 01	107	6 38.3	18	21	Worthington, . . . . .	121	7 42.8
23	22	Goshen, . . . . .	363 29	65	5 58.9	21	22	Goshen, . . . . .	50	7 26.5
16	23	Middlefield, . . . . .	542 67	98	5 53.7	20	23	Middlefield, . . . . .	106	5 11.8

## MIDDLESEX COUNTY.

1	1	Weston, . . . . .	\$54 36.9	209	\$54 36.9	1	1	Weston, . . . . .	217	\$52 36.5
2	2	Pelmont, . . . . .	37 87.9	512	37 87.9	3	2	Lincoln, . . . . .	136	36 63.0
3	3	Melrose, . . . . .	35 56.0	1,960	35 56.0	6	3	Newton, . . . . .	5,025	35 19.2
4	4	Newton, . . . . .	34 30.4	5,155	34 30.4	11	4	Belmont, . . . . .	551	34 73.3
5	5	Lexington, . . . . .	34 25.7	553	34 25.7	2	5	Sudbury, . . . . .	178	34 29.6
6	6	Sudbury, . . . . .	33 91.5	180	33 91.5	7	6	Watertown, . . . . .	1,132	31 45.0
7	7	Concord, . . . . .	30 57.3	776	30 57.3	4	7	Tyngsborough, . . . . .	83	31 00.8
8	8	Lincoln, . . . . .	30 01.0	166	30 01.0	5	8	Lexington, . . . . .	616	30 76.4
9	9	Melford, . . . . .	28 92.9	3,197	28 92.9	12	9	Malden, . . . . .	5,247	30 34.8
10	10	Winchester, . . . . .	1,115	3,197	28 76.5	10	10	Medford, . . . . .	3,078	30 04.7
11	11	Groton, . . . . .	33 224 50	333	28 48.0	8	11	Burlington, . . . . .	54	29 01.0
12	12	Cambridge, . . . . .	377,819 38	13,780	27 41.7	13	12	Lowell, . . . . .	10,584	28 51.4
13	13	Arlington, . . . . .	37,140 17	1,364	27 22.8	14	13	Cambridge, . . . . .	13,255	28 50.3
14	14	Malden, . . . . .	159,236 00	5,858	27 18.2	18	14	Concord, . . . . .	848	27 97.8

## MIDDLESEX COUNTY — CONCLUDED.

For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
19	15	Littleton, . . . . .	\$5,205 14	200	\$25 12.5	20	15	Melrose, . . . . .	2,506	\$27 81.2
11	16	Ashtland, . . . . .	6,998 68	270	25 92.1	9	16	Waltham, . . . . .	2,781	27 58.2
18	17	Somerville, . . . . .	244,914 91	9,485	25 82.1	15	17	Arlington, . . . . .	1,347	27 57.2
21	18	Frammingham, . . . . .	47,567 78	1,849	25 72.6	16	18	Somerville, . . . . .	9,298	26 34.0
26	19	Reading, . . . . .	20,922 28	882	25 14.6	24	19	Bedford, . . . . .	170	26 22.7
7	20	Tyngsborough, . . . . .	2,573 69	103	24 98.7	26	20	Dracut, . . . . .	400	25 67.7
13	21	Wayland, . . . . .	10,230 90	418	24 47.5	30	21	Winchester, . . . . .	1,294	25 67.5
20	22	Acton, . . . . .	6,787 77	279	24 32.8	23	22	Littleton, . . . . .	204	25 51.5
17	23	Watertown, . . . . .	35,602 25	1,477	24 10.4	28	23	Groton, . . . . .	397	25 32.4
22	24	Holliston, . . . . .	9,700 00	409	23 71.6	29	24	Reading, . . . . .	882	24 55.6
41	25	Burlington, . . . . .	1,566 54	67	23 38.1	21	25	Acton, . . . . .	279	24 32.8
24	26	Bedford, . . . . .	4,458 61	191	23 34.3	27	26	Frammingham, . . . . .	1,969	24 15.8
23	27	Hopkinton, . . . . .	9,780 87	430	22 74.6	19	27	Wayland, . . . . .	429	23 84.8
31	28	Everett, . . . . .	98,320 05	4,381	22 44.2	34	28	Everett, . . . . .	4,311	22 80.6
28	29	Stoneham, . . . . .	21,129 05	956	22 10.1	42	29	Dunstable, . . . . .	57	22 38.5
38	30	Dunstable, . . . . .	1,276 00	58	22 00.0	17	30	Sherborn, . . . . .	142	22 27.3
30	31	North Reading, . . . . .	2,892 61	134	21 58.6	33	31	Marlborough, . . . . .	2,434	22 22.1
32	32	Natick, . . . . .	34,490 45	1,603	21 51.5	25	32	Holliston, . . . . .	439	22 09.5
36	33	Wakefield, . . . . .	36,727 86	1,793	21 20.5	22	33	Ashtand, . . . . .	317	22 07.7
40	34	Hudson, . . . . .	18,911 10	895	21 12.9	32	34	Stoneham, . . . . .	962	21 96.3
27	35	Lowell, . . . . .	301,797 23	14,449	20 88.7	38	35	Wilmington, . . . . .	264	21 89.4
33	36	Waltham, . . . . .	76,705 80	3,832	20 01.7	31	36	Hopkinton, . . . . .	465	21 03.4
44	37	Dracut, . . . . .	10,271 12	514	19 98.2	41	37	Wakefield, . . . . .	1,782	20 98.3
45	38	Chelmsford, . . . . .	11,890 73	598	19 88.4	37	38	North Reading, . . . . .	138	20 96.0
35	39	Townsend, . . . . .	5,276 24	267	19 76.1	45	39	Tewksbury, . . . . .	401	20 65.5
34	40	Pepperell, . . . . .	13,520 30	704	19 20.4	48	40	BillERICA, . . . . .	428	20 55.6
42	41	BillERICA, . . . . .	8,798 17	473	18 60.0	40	41	Woburn, . . . . .	2,647	20 40.6
25	42	Westford, . . . . .	8,084 04	438	18 45.6	39	42	Westford, . . . . .	402	20 10.9
39	43	Wilmington, . . . . .	5,780 11	315	18 34.8	35	43	Townsend, . . . . .	264	19 98.5
49	44	Marlborough, . . . . .	54,066 38	2,968	18 22.3	46	44	Hudson, . . . . .	949	19 92.8
51	45	Maynard, . . . . .	9,062 52	521	17 39.4	44	45	Natick, . . . . .	1,757	19 63.0

### SCHOOL RETURNS.

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46	Ashby, .	2,316	66	134	17 28.8	43	46	Pepperell, .	707	19 12.3
48	Woburn, .	54,016	87	3,147	17 16.4	47	47	Carlisle, .	65	18 16.8
50	Tewksbury, .	8,282	85	493	16 80.0	49	48	Ashby, .	130	17 82.0
37	Sherborn, .	3,162	93	194	16 30.3	50	49	Chelmsford, .	708	16 79.4
47	Ayer, .	7,320	08	473	15 47.5	51	50	Stow, .	122	16 76.0
53	Boxborough, .	855	00	57	15 00.0	53	51	Ayer, .	438	16 71.2
54	Carlisle, .	1,180	97	80	14 70.2	54	52	Maynard, .	552	16 41.7
52	Stow, .	2,044	82	142	14 40.0	52	53	Boxborough, .	58	14 74.1
43	Shirley, .	2,920	23	238	12 26.9	36	54	Shirley, .	201	14 52.8

NANTUCKET COUNTY.

	Nantucket,	\$6,984	37	329	\$21 22.9	Nantucket,	351	\$19 89.8
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NORFOLK COUNTY.

1	1	\$54,793.80	1,110	\$49.36.3	1	Milton,	1,162	\$47.41.2
2	2	130,115.38	2,934	44.34.7	4	Brookline,	612	43.66.5
3	3	26,112.57	671	38.91.5	3	Wellesley,	3,151	41.29.3
5	4	13,078.21	401	32.61.3	3	Brookline,	157	34.33.3
6	5	38,724.79	1,299	29.81.1	5	Westwood,	401	32.61.3
7	6	5,390.36	187	28.82.5	6	Cohasset,	1,275	30.37.2
13	7	16,900.68	605	27.93.5	7	Dedham,	571	29.68.9
11	8	11,902.91	451	26.39.2	6	Wrentham,	1,577	29.00.7
14	9	14,075.48	555	25.36.1	8	Wrentham,	91	28.79.4
16	10	3,223.43	131	24.60.6	10	Dover,	445	26.74.8
12	11	23,617.52	987	23.92.8	13	Needham,	678	24.92.7
7	12	5,253.94	298	23.01.3	11	Woburn,	570	24.69.3
10	13	44,348.27	1,947	22.77.7	12	Woburn,	570	23.87.7
18	14	45,745.53	2,126	21.51.7	14	Norfolk,	135	23.13.5
19	15	11,382.05	532	21.39.4	10	Franklin,	597	22.62.1
16	16	2,626.34	126	20.84.3	26	Sharon,	259	22.36.7
26	17	5,858.95	287	20.41.4	12	Quincy,	4,405	21.86.8
					18	Brantree,	1,080	

NORFOLK COUNTY — CONCLUDED.

For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
15	18	Canton, . . . . .	\$16,952 49	833	\$20 35.1	17	18	Medfield, . . . . .	242	\$21 71.0
21	19	Quincy, . . . . .	98,528 72	4,999	19 70.9	15	19	Weymouth, . . . . .	2,057	21 55.4
17	20	Norwood, . . . . .	20,310 47	1,045	19 43.5	16	20	Foxborough, . . . . .	545	20 88.4
25	21	Medway, . . . . .	8,395 69	448	18 74.0	21	21	Stoughton, . . . . .	705	20 71.7
24	22	Holbrook, . . . . .	7,650 03	409	18 70.4	20	22	Norwood, . . . . .	1,060	19 16.0
23	23	Franklin, . . . . .	13,811 92	763	18 10.2	25	23	Holbrook, . . . . .	425	18 00.0
20	24	Randolph, . . . . .	10,409 62	624	16 68.2	27	24	Medway, . . . . .	496	16 92.6
28	25	Stoughton, . . . . .	14,605 93	923	15 82.4	23	25	Randolph, . . . . .	645	16 06.4
27	26	Avon, . . . . .	4,165 29	269	15 48.4	24	26	Bellingham, . . . . .	258	15 87.0
22	27	Millis, . . . . .	3,348 88	231	14 49.7	22	27	Millis, . . . . .	213	15 72.2
9	28	Bellingham, . . . . .	4,094 49	298	13 73.9	28	28	Avon, . . . . .	289	14 41.2

PLYMOUTH COUNTY.

For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Amount raised by taxation and expended for the support of public schools.	No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised and expended per child, as determined by the number of children between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
1	1	Hull, . . . . .	\$5,511 47	162	\$34 02.1	1	1	Hull, . . . . .	140	\$39 36.7
5	2	Hingham, . . . . .	20,914 20	723	28 92.6	6	2	Mattapoisett, . . . . .	137	27 39.0
3	3	Mattapoisett, . . . . .	3,752 52	140	26 80.3	2	3	Hingham, . . . . .	772	27 09.0
9	4	Abington, . . . . .	17,479 54	671	26 04.9	4	4	Marshfield, . . . . .	259	25 89.5
6	5	Marshfield, . . . . .	6,706 96	263	25 50.1	3	5	Abington, . . . . .	702	24 89.9
12	6	Scituate, . . . . .	8,088 22	360	22 46.7	10	6	Marton, . . . . .	120	23 39.1
8	7	Plymouth, . . . . .	33,031 80	1,471	22 45.5	9	7	Scituate, . . . . .	347	23 30.8
22	8	Marion, . . . . .	2,807 01	128	21 92.9	5	8	Brockton, . . . . .	6,069	22 91.1
4	9	Bridgewater, . . . . .	14,739 40	673	21 90.1	24	9	Carver, . . . . .	158	22 82.7
6	10	Hanover, . . . . .	6,374 18	292	21 82.9	8	10	Plymouth, . . . . .	1,452	22 74.2
23	11	Carver, . . . . .	3,606 76	170	21 21.6	18	11	Duxbury, . . . . .	239	22 03.4
15	12	Middleborough, . . . . .	21,783 48	1,043	20 88.5	14	12	Norwell, . . . . .	239	21 40.7
11	13	Norwell, . . . . .	5,116 42	245	20 88.3	11	13	Hanover, . . . . .	302	21 10.6

7	14	Brockton, . . . . .	139,049 68	6,700	20 75.3	17	14	Middleborough, . . . . .	1,045	20 84.5
16	15	Rockland, . . . . .	19,105 22	964	19 81.8	7	15	Bridgewater, . . . . .	1,720	20 47.1
13	16	Duxbury, . . . . .	5,266 23	267	19 72.3	13	16	West Bridgewater, . . . . .	257	19 83.1
10	17	Whitman, . . . . .	21,109 22	1,080	19 57.9	19	17	Kingston, . . . . .	329	19 57.8
14	18	Kingston, . . . . .	6,474 23	333	19 44.2	15	18	Whitman, . . . . .	1,078	19 58.1
17	19	East Bridgewater, . . . . .	9,220 83	498	18 51.5	12	19	Hanson, . . . . .	190	18 72.6
19	20	West Bridgewater, . . . . .	5,096 91	291	17 51.4	21	20	East Bridgewater, . . . . .	494	18 66.5
18	21	Hanson, . . . . .	3,558 04	205	17 35.6	22	21	Rockland, . . . . .	1,062	17 98.9
20	22	Wareham, . . . . .	8,919 65	504	15 01.6	20	22	Wareham, . . . . .	544	16 39.6
26	23	Lakeville, . . . . .	1,834 18	136	13 48.6	26	23	Lakeville, . . . . .	115	15 94.9
24	24	Pembroke, . . . . .	2,572 72	191	13 46.9	23	24	Halifax, . . . . .	63	15 91.4
21	25	Plympton, . . . . .	718 76	54	13 31.0	27	25	Rochester, . . . . .	132	15 48.6
27	26	Rochester, . . . . .	2,044 26	164	12 46.5	25	26	Pembroke, . . . . .	167	15 40.5
25	27	Halifax, . . . . .	1,002 60	81	12 37.7	16	27	Plympton, . . . . .	49	14 66.8

## SUFFOLK COUNTY.

1	1	Boston, . . . . .	\$2,530,746 96	86,505	\$29 25.5	1	1	Boston, . . . . .	77,008	\$32 86.3
3	2	Winthrop, . . . . .	24,237 41	844	28 71.7	2	2	Winthrop, . . . . .	963	25 16.8
2	3	Revere, . . . . .	48,133 47	1,869	25 75.3	3	3	Revere, . . . . .	1,954	24 63.3
4	4	Chelsea, . . . . .	109,086 69	5,591	19 51.1	4	4	Chelsea, . . . . .	5,057	21 57.1

## WORCESTER COUNTY.

5	1	Hopedale, . . . . .	\$8,053 50	233	\$34 56.4	8	1	Hopedale, . . . . .	249	\$32 34.3
1	2	Princeton, . . . . .	3,828 84	122	31 38.3	1	2	Fitchburg, . . . . .	3,761	29 44.2
12	3	Westborough, . . . . .	15,668 21	622	25 19.0	2	3	Harvard, . . . . .	128	29 07.3
7	4	Worcester, . . . . .	505,904 49	20,159	25 09.5	17	4	Spencer, . . . . .	1,059	29 01.1
4	5	Harvard, . . . . .	3,721 35	150	24 80.8	5	5	Worcester, . . . . .	18,385	27 51.7
14	6	Lancaster, . . . . .	9,901 92	415	23 86.0	3	6	Princeton, . . . . .	140	27 34.8
2	7	Petersham, . . . . .	2,599 42	111	23 41.8	13	7	Webster, . . . . .	654	27 11.2
9	8	Southborough, . . . . .	7,139 24	309	23 10.4	9	8	Lancaster, . . . . .	376	26 33.4
22	9	Leicester, . . . . .	12,900 52	568	22 71.2	33	9	Faxton, . . . . .	51	25 75.5

## BOARD OF EDUCATION.

## WORCESTER COUNTY — CONCLUDED.

TOWNS AND CITIES.		No. of children in town or city between 5 and 15 years of age, Sept. 1, 1899.	Amount raised by taxation and ex- pended for the support of public schools.	Amount raised and expended per child, as determined by the number of chil- dren between 5 and 15.	For 1898-1899.	For 1899-1900.	TOWNS AND CITIES.	Average mem- bership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
For 1898-1899.	For 1899-1900.								
10	Mendon, . . . . .	136	\$3,085 76	\$22 68.9	4	10	Petersham, . . . . .	102	\$25 48.4
6	Upton, . . . . .	280	6,328 01	22 60.0	7	11	Barre, . . . . .	276	25 33.7
13	Barre, . . . . .	316	6,993 19	22 13.0	6	12	Southborough, . . . . .	285	25 04.9
15	Shrewsbury, . . . . .	243	5,243 46	21 57.8	35	13	Southbridge, . . . . .	946	24 24.0
3	West Boylston, . . . . .	465	9,740 28	20 94.6	38	14	New Braintree, . . . . .	68	22 62.1
16	Leominster, . . . . .	1,918	40,144 29	20 93.0	30	15	Westborough, . . . . .	696	22 51.1
36	Westminster, . . . . .	185	3,822 95	20 66.4	27	16	Leicester, . . . . .	574	22 47.4
26	Northborough, . . . . .	373	7,504 23	20 11.8	25	17	Grafton, . . . . .	790	22 25.2
25	Athol, . . . . .	1,042	20,791 09	19 95.3	18	18	Athol, . . . . .	938	22 16.5
35	West Brookfield, . . . . .	220	4,385 20	19 93.2	50	19	Sturbridge, . . . . .	278	22 07.8
8	Sterling, . . . . .	185	3,642 31	19 68.8	26	20	Mendon, . . . . .	140	22 04.1
20	Fitchburg, . . . . .	5,679	110,732 37	19 49.8	45	21	West Brookfield, . . . . .	201	21 81.6
31	Gardner, . . . . .	1,730	33,675 77	19 46.5	21	22	West Boylston, . . . . .	449	21 69.3
40	Sturbridge, . . . . .	316	6,137 72	19 42.3	19	23	Leominster, . . . . .	1,869	21 47.9
34	Bolton, . . . . .	120	2,307 94	19 23.2	16	24	Shrewsbury, . . . . .	245	21 40.1
30	Grafton, . . . . .	921	17,579 12	19 08.6	12	25	Upton, . . . . .	305	20 67.9
21	Millford, . . . . .	1,474	27,562 61	18 69.9	41	26	Millford, . . . . .	1,334	20 66.1
11	Warren, . . . . .	767	14,246 70	18 57.4	31	27	Bolton, . . . . .	113	20 42.4
44	Spencer, . . . . .	1,663	30,723 09	18 47.4	28	28	Warren, . . . . .	698	20 41.0
24	Northbridge, . . . . .	1,213	22,387 53	18 45.6	34	29	Gardner, . . . . .	1,650	20 40.9
38	Ashburnham, . . . . .	314	5,781 73	18 41.3	29	30	Northbridge, . . . . .	1,112	20 13.2
33	Paxton, . . . . .	72	1,313 52	18 24.3	40	31	Clinton, . . . . .	1,949	20 04.1
28	Uxbridge, . . . . .	608	11,046 54	18 16.8	32	32	Northborough, . . . . .	375	20 01.1
17	Hubbardston, . . . . .	199	3,606 25	18 21.1	37	33	Uxbridge, . . . . .	560	19 72.5
32	Holden, . . . . .	496	8,745 93	17 63.2	22	34	North Brookfield, . . . . .	628	19 47.3
41	Lunenburg, . . . . .	215	3,729 12	17 34.4	14	35	Hardwick, . . . . .	357	19 43.8
29	Lunenburg, . . . . .	558	9,567 75	17 14.6	43	36	Dudley, . . . . .	353	19 37.2
50	Brookfield, . . . . .	328	5,552 21	16 92.7	46	37	Brookfield, . . . . .	498	19 21.2
37	Douglas, . . . . .	91	1,538 29	16 90.4	36	38	Holden, . . . . .	456	19 17.9
43	New Braintree, . . . . .	2,355	39,060 07	16 58.6	51	39	Lunenburg, . . . . .	198	18 83.3
45	Clinton, . . . . .								



51	40	Boylston, .	1,680 30	106	15 85.1	10	40	Sterling, .	195	18 67.8
46	41	Millbury, .	13,029 10	829	15 71.6	47	41	Boylston, .	90	18 67.0
37	42	Oxford, .	7,369 75	486	15 16.4	15	42	Hubbardston, .	195	18 49.3
27	43	Blackstone, .	13,589 12	899	15 11.5	44	43	Oxford, .	403	18 28.7
39	44	Templeton, .	8,772 83	587	14 94.5	42	44	Millbury, .	715	18 22.2
48	45	Rutland, .	3,187 35	222	14 35.7	49	45	Westminster, .	213	17 94.8
57	46	Dana, .	1,462 60	105	13 92.9	48	46	Douglas, .	332	16 72.3
23	47	Phillipston, .	916 33	66	13 88.3	24	47	Phillipston, .	55	16 66.0
53	48	Winchendon, .	12,162 97	913	13 32.1	23	48	Sutton, .	410	16 42.3
49	49	North Brookfield, .	12,239 30	968	12 63.3	53	49	Ashturnham, .	354	16 33.2
42	50	Hardwick, .	6,939 51	553	12 54.8	56	50	Rutland, .	199	16 01.6
52	51	Charlton, .	4,169 46	341	12 22.7	64	51	Auburn, .	259	15 43.9
19	52	Oakham, .	1,141 75	100	11 41.7	57	52	Winchendon, .	792	15 35.7
54	53	Southbridge, .	22,931 88	2,018	11 36.3	55	53	Templeton, .	573	15 31.0
47	54	Auburn, .	3,998 86	382	11 36.0	20	54	Blackstone, .	895	15 18.3
59	55	Webster, .	17,731 47	1,587	11 17.2	52	55	Charlton, .	275	15 16.1
56	56	Berlin, .	1,784 94	164	10 88.3	68	56	Berlin, .	119	14 99.9
55	57	Sutton, .	6,733 73	620	10 86.0	59	57	Dana, .	104	14 06.3
18	58	Royalston, .	1,512 26	141	10 72.5	11	58	Royalston, .	119	12 70.8
58	59	Dudley, .	6,838 42	671	10 19.1	39	59	Oakham, .	98	12 27.6

GRADUATED TAXATION TABLE.

For 1898-1899.		For 1899-1900.		COUNTIES.	Amount raised and expended per child, as determined by the number of children between 5 and 15.		For 1898-1899.		For 1899-1900.		COUNTIES.	Average membership of the public schools.	Amount raised and expended for each child in the average membership of the public schools.
1	2	3	4		5	6	7	8	9	10			
1	Suffolk,	\$2,712,204 53	94,809		\$28 60.7		1		1		Suffolk,	84,982	\$31 91.5
2	Norfolk,	655,423 74	25,419		25 78.4		2		2		Hampden,	24,163	28 28.3
3	Middlesex,	2,248,187 70	91,024		24 69.8		3		3		Norfolk,	24,104	27 19.1
4	Barnstable,	95,571 11	4,195		22 78.2		4		4		Middlesex,	84,040	26 75.1
5	Hampden,	683,422 05	30,457		22 43.8		5		5		Middlesex,	49,637	23 87.0
6	Nantucket,	6,984 37	329		21 22.9		6		6		Worcester,	47,580	23 37.3
7	Plymouth,	375,884 19	17,899		21 00.0		7		7		Essex,	32,497	22 55.9
8	Dukes,	12,516 67	605		20 68.8		8		8		Bristol,	4,274	22 36.1
9	Worcester,	1,184,874 45	58,899		20 11.6		9		9		Barnstable,	17,181	21 87.7
10	Essex,	1,112,105 12	56,406		19 71.6		10		10		Dukes,	573	21 84.4
11	Franklin,	126,467 39	6,839		18 49.2		11		11		Nantucket,	351	19 89.8
12	Hampshire,	167,578 01	9,750		17 18.7		12		12		Berkshire,	14,865	19 88.8
13	Berkshire,	296,645 10	17,363		17 02.7		13		13		Hampshire,	8,492	19 73.8
14	Bristol,	733,115 73	43,923		16 69.0		14		14		Franklin,	6,684	18 92.0

AGGREGATE FOR THE STATE.

STATE,	\$10,409,980 16	457,917	\$22 73.3	STATE,	399,423	\$26 06.2
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## II. GRADUATED VALUATION TABLE.

*A graduated table in which all the towns in the State are numerically arranged according to the proportion of their taxable property appropriated for the support of public schools for the year 1899-1900.*

NOTE. — The percentage which is expressed in the following table as so many mills and hundredths of mills on a dollar may be transformed at once to dollars of tax on a thousand dollars of valuation, — West Boylston, for instance, appropriating \$11.09 per thousand dollars of valuation, and so on to the end of the table.

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
1	1	West Boylston, .	\$.011-09	43	44	Westford, . .	.006-33
11	2	Spencer, . .	.008-85	26	45	Holbrook, . .	.006-31
44	3	Warren, . .	.008-35	29	46	Tyngsborough, .	.006-29
27	4	Wrentham, . .	.007-97	56	47	Huntington, . .	.006-29
39	5	South Hadley, .	.007-80	52	48	Rockland, . .	.006-25
31	6	Rowe, . .	.007-66	53	49	Mansfield, . .	.006-18
9	7	Palmer, . .	.007-64	198	50	Hawley, . .	.006-15
6	8	Abington, . .	.007-54	23	51	Ashland, . .	.006-13
59	9	E. Longmeadow, .	.007-48	55	52	Ware, . .	.006-13
3	10	W. Stockbridge, .	.007-40	35	53	New Salem, . .	.006-11
8	11	Merrimac, . .	.007-40	74	54	Pepperell, . .	.006-11
22	12	Adams, . .	.007-36	73	55	Medway, . .	.006-09
20	13	Holden, . .	.007-34	50	56	Georgetown, . .	.006-08
25	14	Grafton, . .	.007-29	67	57	Lee, . .	.006-08
5	15	Buckland, . .	.007-26	145	58	Norfolk, . .	.006-03
7	16	Charlemont, . .	.007-23	28	59	Upton, . .	.006-02
4	17	Orleans, . .	.007-10	113	60	Williamstown, .	.006-01
40	18	Groveland, . .	.007-07	97	61	Dighton, . .	.006-00
13	19	Colrain, . .	.007-01	114	62	Norwell, . .	.005-99
61	20	Templeton, . .	.007-01	80	63	Northborough, .	.005-97
36	21	Brookfield, . .	.006-98	111	64	Somerset, . .	.005-97
12	22	Hinsdale, . .	.006-96	136	65	Southbridge, . .	.005-96
2	23	Granville, . .	.006-92	99	66	Malden, . .	.005-95
15	24	Auburn, . .	.006-92	122	67	Ashburnham, . .	.005-94
81	25	Erving, . .	.006-83	134	68	Westminster, . .	.005-93
30	26	Dennis, . .	.006-81	48	69	Williamsburg, .	.005-92
62	27	Orange, . .	.006-81	32	70	Bridgewater, . .	.005-89
33	28	Weymouth, . .	.006-75	91	71	Wilbraham, . .	.005-87
18	29	Northbridge, . .	.006-70	78	72	North Reading, .	.005-84
24	30	Monson, . .	.006-69	92	73	Natick, . .	.005-84
17	31	Holliston, . .	.006-65	115	74	Littleton, . .	.005-84
14	32	North Brookfield, .	.006-64	10	75	Florida, . .	.005-83
66	33	N. Attleborough, .	.006-64	85	76	Marlborough, . .	.005-82
110	34	Sturbridge, . .	.006-63	82	77	Whitman, . .	.005-77
46	35	Dudley, . .	.006-56	109	78	Leominster, . .	.005-76
21	36	Heath, . .	.006-54	160	79	W. Brookfield, .	.005-75
87	37	Truro, . .	.006-48	72	80	Hubbardston, . .	.005-74
37	38	Wayland, . .	.006-46	96	81	Brewster, . .	.005-73
57	39	E. Bridgewater, .	.006-45	125	82	Concord, . .	.005-73
63	40	Hudson, . .	.006-43	49	83	Shelburne, . .	.005-70
42	41	Gardner, . .	.006-39	54	84	Ludlow, . .	.005-68
58	42	Provincetown, . .	.006-37	79	85	Sandwich, . .	.005-68
77	43	Montague, . .	.006-34	90	86	Millbury, . .	.005-68

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of valu- ation appropriated to public schools equivalent to mills and hundredths of mills.	For 1898-1899 by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of valu- ation appropriated to public schools — equivalent to mills and hundredths of mills.
70	87	Chatham, . . .	\$.005-67	154	149	Quincy, . . .	\$.005-00
121	88	Foxborough, . .	.005-66	149	150	Taunton, . . .	.004-99
105	89	Oxford, . . .	.005-65	190	151	Berkley, . . .	.004-99
222	90	Clarksburg, . .	.005-65	45	152	Raynham, . . .	.004-94
159	91	Saugus, . . .	.005-62	178	153	Stoughton, . .	.004-94
106	92	Westfield, . . .	.005-61	200	154	Milford, . . .	.004-94
130	93	Mendon, . . .	.005-61	167	155	Athol, . . .	.004-93
64	94	Norton, . . .	.005-59	171	156	Uxbridge, . . .	.004-93
118	95	Sutton, . . .	.005-58	219	157	Needham, . . .	.004-91
148	96	Sunderland, . .	.005-58	19	158	Windsor, . . .	.004-89
153	97	Attleborough, .	.005-58	152	159	Leicester, . . .	.004-89
146	98	Greenfield, . .	.005-55	173	160	Barnstable, . .	.004-89
16	99	North Adams, .	.005-53	192	161	Holyoke, . . .	.004-88
142	100	Westborough, .	.005-53	228	162	Winchendon, .	.004-88
144	101	Walpole, . . .	.005-53	307	163	Dana, . . .	.004-87
100	102	Everett, . . .	.005-51	133	164	Southborough, .	.004-86
170	103	Methuen, . . .	.005-51	232	165	Chelmsford, . .	.004-86
34	104	Randolph, . . .	.005-50	162	166	Haverhill, . . .	.004-85
93	105	West Springfield,	.005-50	186	167	Ayer, . . .	.004-84
158	106	Melrose, . . .	.005-50	151	168	Norwood, . . .	.004-83
51	107	Bellingham, . .	.005-48	107	169	Westwood, . . .	.004-82
127	108	Middleborough, .	.005-46	119	170	Middleton, . . .	.004-79
71	109	Hopkinton, . .	.005-41	156	171	Ashby, . . .	.004-79
193	110	Rutland, . . .	.005-41	168	172	Fitchburg, . . .	.004-79
181	111	Granby, . . .	.005-40	176	173	Somerville, . .	.004-78
139	112	Wilmington, . .	.005-37	161	174	Townsend, . . .	.004-77
211	113	West Newbury, .	.005-36	226	175	Wakefield, . . .	.004-77
101	114	Conway, . . .	.005-35	188	176	Medford, . . .	.004-76
60	115	Belchertown, . .	.005-34	191	177	Gt. Barrington, .	.004-76
132	116	Woburn, . . .	.005-34	75	178	Swansea, . . .	.004-75
102	117	Easthampton, .	.005-33	169	179	Cheshire, . . .	.004-75
124	118	Harwich, . . .	.005-33	147	180	Barre, . . .	.004-74
126	119	Sheffield, . . .	.005-33	212	181	Lynn, . . .	.004-74
68	120	Sudbury, . . .	.005-28	184	182	Reading, . . .	.004-72
89	121	Hanover, . . .	.005-27	38	183	Wales, . . .	.004-71
103	122	Douglas, . . .	.005-27	265	184	Lunenburg, . . .	.004-71
112	123	Dalton, . . .	.005-27	185	185	Fairhaven, . . .	.004-70
166	124	Chester, . . .	.005-26	203	186	Bolton, . . .	.004-70
179	125	Dracut, . . .	.005-26	340	187	Cummington, . .	.004-69
214	126	Webster, . . .	.005-26	174	188	Billerica, . . .	.004-68
199	127	Braintree, . . .	.005-25	220	189	Kingston, . . .	.004-68
255	128	Marshfield, . .	.005-23	201	190	Chelsea, . . .	.004-66
175	129	Clinton, . . .	.005-22	204	191	Plymouth, . . .	.004-66
88	130	Danvers, . . .	.005-21	98	192	Wellfleet, . . .	.004-64
108	131	Hanson, . . .	.005-21	180	193	Gloucester, . . .	.004-64
116	132	Framingham, . .	.005-21	195	194	Charlton, . . .	.004-64
140	133	Salisbury, . . .	.005-20	260	195	Northfield, . . .	.004-64
236	134	Chicopee, . . .	.005-18	172	196	Tolland, . . .	.004-63
65	135	Rehoboth, . . .	.005-15	164	197	Millis, . . .	.004-62
231	136	Brimfield, . . .	.005-14	117	198	Ashfield, . . .	.004-61
86	137	Monroe, . . .	.005-13	141	199	North Andover, .	.004-61
123	138	Agawam, . . .	.005-13	187	200	Shrewsbury, . .	.004-60
163	139	Hingham, . . .	.005-13	251	201	Revere, . . .	.004-60
177	140	Pittsfield, . . .	.005-10	216	202	Westport, . . .	.004-59
95	141	Brockton, . . .	.005-08	239	203	Dedham, . . .	.004-59
104	142	Avon, . . .	.005-07	189	204	Becket, . . .	.004-58
84	143	Blackstone, . .	.005-05	128	205	Richmond, . . .	.004-56
217	144	Tewksbury, . . .	.005-04	281	206	Mashpee, . . .	.004-55
182	145	New Marlboro', .	.005-03	208	207	Andover, . . .	.004-51
197	146	Amherst, . . .	.005-03	237	208	Princeton, . . .	.004-51
202	147	Northampton, .	.005-02	205	209	Worcester, . . .	.004-50
129	148	Westhampton, .	.005-01	279	210	Paxton, . . .	.004-49

## SCHOOL RETURNS.

CV

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of valua- tion appropriated to public schools — equivalent to mills and hundredths of mills.	For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of valua- tion appropriated to public schools — equivalent to mills and hundredths of mills.
165	211	Hardwick, . . .	\$.004-48	319	272	Belmont, . . .	\$.003-77
218	212	Hyde Park, . . .	.004-44	270	273	Lexington, . . .	.003-66
47	213	Savoy, . . .	.004-43	287	274	Topsfield, . . .	.003-76
230	214	Washington, . . .	.004-43	244	275	Halifax, . . .	.003-73
229	215	Gay Head, . . .	.004-40	250	276	Leyden, . . .	.003-70
245	216	Prescott, . . .	.004-38	135	277	Oakham, . . .	.003-67
259	217	Dunstable, . . .	.004-37	272	278	Newbury, . . .	.003-67
322	218	Edgartown, . . .	.004-37	298	279	Winthrop, . . .	.003-63
294	219	Southwick, . . .	.004-36	276	280	Marblehead, . . .	.003-62
209	220	Ipswich, . . .	.004-33	137	281	Russell, . . .	.003-61
273	221	Springfield, . . .	.004-33	246	282	Boxborough, . . .	.003-61
138	222	Montgomery, . . .	.004-30	317	283	Berlin, . . .	.003-59
261	223	Essex, . . .	.004-30	274	284	Rowley, . . .	.003-53
207	224	Lawrence, . . .	.004-29	286	285	Bourne, . . .	.003-53
210	225	Blandford, . . .	.004-29	291	286	Hatfield, . . .	.003-52
223	226	Acton, . . .	.004-29	284	287	Acushnet, . . .	.003-50
183	227	Franklin, . . .	.004-28	234	288	Hadley, . . .	.003-46
249	228	Salem, . . .	.004-27	306	289	Lenox, . . .	.003-45
253	229	Southampton, . . .	.004-25	300	290	New Bedford, . . .	.003-42
258	230	Petersham, . . .	.004-25	308	291	Carlisle, . . .	.003-40
227	231	Canton, . . .	.004-24	238	292	Phillipston, . . .	.003-39
256	232	Maynard, . . .	.004-24	271	293	Leverett, . . .	.003-37
248	233	Monterey, . . .	.004-23	303	294	Tisbury, . . .	.003-36
263	234	Lowell, . . .	.004-23	304	295	Watertown, . . .	.003-36
240	235	Amesbury, . . .	.004-20	295	296	Gill, . . .	.003-30
264	236	Rockport, . . .	.004-20	315	297	Freetown, . . .	.003-27
285	237	Rochester, . . .	.004-20	323	298	Hancock, . . .	.003-27
254	238	Arlington, . . .	.004-19	313	299	Duxbury, . . .	.003-25
120	239	Sterling, . . .	.004-18	320	300	Lancaster, . . .	.003-19
150	240	Deerfield, . . .	.004-18	327	301	Groton, . . .	.003-19
235	241	W. Bridgewater, . . .	.004-18	329	302	Swampscott, . . .	.003-19
344	242	Mt. Washington, . . .	.004-17	332	303	Sharon, . . .	.003-19
131	243	Easton, . . .	.004-15	269	304	Plainfield, . . .	.003-16
280	244	Wendell, . . .	.004-15	312	305	Scituate, . . .	.003-16
266	245	Cambridge, . . .	.004-12	318	306	Stockbridge, . . .	.003-15
311	246	Carver, . . .	.004-11	289	307	Burlington, . . .	.003-13
206	247	Peabody, . . .	.004-10	296	308	Newburyport, . . .	.003-13
242	248	Bedford, . . .	.004-10	314	309	Newton, . . .	.003-13
252	249	Hampden, . . .	.004-10	69	310	Royalston, . . .	.003-12
157	250	Boylston, . . .	.004-08	299	311	Dover, . . .	.003-11
224	251	Pembroke, . . .	.004-07	335	312	Boxford, . . .	.003-11
257	252	Stoneham, . . .	.004-07	305	313	Seekonk, . . .	.003-03
194	253	Lanesborough, . . .	.004-05	333	314	Beverly, . . .	.003-03
282	254	Winchester, . . .	.004-04	330	315	Wellesley, . . .	.002-99
278	255	Warwick, . . .	.004-02	301	316	Tyringham, . . .	.002-96
293	256	Lynnfield, . . .	.004-02	233	317	Worthington, . . .	.002-94
290	257	Lakeville, . . .	.004-01	283	318	Weston, . . .	.002-91
275	258	Harvard, . . .	.003-99	225	319	Whately, . . .	.002-90
196	259	Sherborn, . . .	.003-98	302	320	Eastham, . . .	.002-90
247	260	Waltham, . . .	.003-92	325	321	Stow, . . .	.002-87
243	261	Chesterfield, . . .	.003-91	268	322	Sandisfield, . . .	.002-77
262	262	Longmeadow, . . .	.003-91	83	323	Otis, . . .	.002-74
267	263	Fall River, . . .	.003-91	155	324	Middlefield, . . .	.002-74
213	264	Greenwich, . . .	.003-88	331	325	Egremont, . . .	.002-73
241	265	Pelham, . . .	.003-83	342	326	West Tisbury, . . .	.002-71
277	266	Medfield, . . .	.003-82	326	327	Cohasset, . . .	.002-67
238	267	Dartmouth, . . .	.003-82	215	328	Enfield, . . .	.002-66
309	268	New Braintree, . . .	.003-82	339	329	Marion, . . .	.002-66
94	269	Shirley, . . .	.003-81	328	330	Milton, . . .	.002-64
41	270	Shutesbury, . . .	.003-79	297	331	Goshen, . . .	.002-60
221	271	Wareham, . . .	.003-79	316	332	Yarmouth, . . .	.002-58

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS AND CITIES.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
334	333	Wenham, . .	\$9.002-58	349	344	Hopedale, . .	\$9.002-25
321	334	Holland, . .	.002-56	346	345	Nantucket, . .	.002-08
336	335	Cottage City, .	.002-51	324	346	Lincoln, . .	.002-03
143	336	Peru, . . .	.002-49	292	347	New Ashford, .	.001-92
343	337	Mattapoissett, .	.002-47	348	348	Brookline, . .	.001-74
338	338	Chilmark, . .	.002-46	347	349	Alford, . . .	.001-42
76	339	Bernardston, .	.002-32	350	350	Hull, . . . .	.001-86
337	340	Boston, . . .	.002-32	351	351	Manchester, . .	.001-29
345	341	Hamilton, . .	.002-32	352	352	Nahant, . . .	.001-18
310	342	Plympton, . .	.002-28	353	353	Gosnold, . . .	.000-76
341	343	Falmouth, . .	.002-26				

## GRADUATED VALUATION TABLE.

*In which all the towns in the respective counties in the State are numerically arranged according to the proportion of their taxable property appropriated for the support of public schools for the year 1899-1900.*

NOTE. — The percentage which is expressed in the following table as so many mills and hundredths of mills on a dollar may be transformed at once to dollars of tax on a thousand dollars of valuation, — Orleans, for instance, appropriating \$7.10 per thousand dollars of valuation, and so on to the end of the table.

## BARNSTABLE COUNTY.

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of valuation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of valuation appropriated to public schools — equivalent to mills and hundredths of mills.
1	1	Orleans, . . .	\$.007-10	10	9	Barnstable, . . .	\$.004-89
2	2	Dennis, . . .	.006-81	8	10	Wellfleet, . . .	.004-64
6	3	Truro, . . .	.006-48	11	11	Mashpee, . . .	.004-55
3	4	Provincetown, . . .	.006-37	12	12	Bourne, . . .	.003-63
7	5	Brewster, . . .	.005-73	13	13	Eastham, . . .	.002-90
5	6	Sandwich, . . .	.005-68	14	14	Yarmouth, . . .	.002-58
4	7	Chatham, . . .	.005-67	15	15	Falmouth, . . .	.002-26
9	8	Harwich, . . .	.005-33				

## BERKSHIRE COUNTY.

1	1	W. Stockbridge, . . .	\$.007-40	13	17	Richmond, . . .	\$.004-56
6	2	Adams, . . .	.007-36	7	18	Savoy, . . .	.004-43
3	3	Hinsdale, . . .	.006-96	22	19	Washington, . . .	.004-43
8	4	Lee, . . .	.006-08	23	20	Monterey, . . .	.004-23
11	5	Williamstown, . . .	.006-01	31	21	Mt. Washington, . . .	.004-17
2	6	Florida, . . .	.005-83	20	22	Lanesborough, . . .	.004-05
21	7	Clarksburg, . . .	.005-65	27	23	Lenox, . . .	.003-45
4	8	North Adams, . . .	.005-53	29	24	Hancock, . . .	.003-27
12	9	Sheffield, . . .	.005-33	28	25	Stockbridge, . . .	.003-15
10	10	Dalton, . . .	.005-27	26	26	Tyringham, . . .	.002-96
16	11	Pittsfield, . . .	.005-10	24	27	Sandisfield, . . .	.002-77
17	12	New Marlboro', . . .	.005-03	9	28	Otis, . . .	.002-74
5	13	Windsor, . . .	.004-89	30	29	Egremont, . . .	.002-73
19	14	Gt. Barrington, . . .	.004-76	14	30	Pernu, . . .	.002-49
15	15	Cheshire, . . .	.004-75	25	31	New Ashford, . . .	.001-92
18	16	Becket, . . .	.004-58	32	32	Alford, . . .	.001-42

## BRISTOL COUNTY.

5	1	N. Attleborough, . . .	\$.006-64	11	6	Attleborough, . . .	\$.005-58
2	2	Mansfield, . . .	.006-18	4	7	Rehoboth, . . .	.005-15
7	3	Dighton, . . .	.006-00	10	8	Taunton, . . .	.004-99
8	4	Somerset, . . .	.005-97	13	9	Berkley, . . .	.004-99
3	5	Norton, . . .	.005-59	1	10	Raynham, . . .	.001-94

## BOARD OF EDUCATION.

## BRISTOL COUNTY — CONCLUDED.

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
6	11	Swansea, . .	\$.004-75	17	16	Dartmouth, . .	\$.003-82
12	12	Fairhaven, . .	.004-70	16	17	Acushnet, . .	.003-50
14	13	Westport, . .	.004-59	18	18	New Bedford, . .	.003-42
9	14	Easton, . .	.004-15	20	19	Freetown, . .	.003-27
15	15	Fall River, . .	.003-91	19	20	Seekonk, . .	.003-03

## DUKES COUNTY.

1	1	Gay Head, . .	\$.004-40	4	5	Cottage City, . .	\$.002-51
3	2	Edgartown, . .	.004-37	5	6	Chilmark, . .	.002-46
2	3	Tisbury, . .	.003-36	7	7	Gosnold, . .	.000-76
6	4	West Tisbury, . .	.002-71				

## ESSEX COUNTY.

1	1	Merrimac, . .	\$.007-40	19	18	Salem, . .	\$.004-27
2	2	Groveland, . .	.007-07	18	19	Amesbury, . .	.004-20
3	3	Georgetown, . .	.006-08	21	20	Rockport, . .	.004-20
8	4	Saugus, . .	.005-62	12	21	Peabody, . .	.004-10
10	5	Methuen, . .	.005-51	26	22	Lynnfield, . .	.004-02
16	6	West Newbury, . .	.005-36	25	23	Topsfield, . .	.003-76
4	7	Danvers, . .	.005-21	22	24	Newbury, . .	.003-67
6	8	Salisbury, . .	.005-20	24	25	Marblehead, . .	.003-62
9	9	Haverhill, . .	.004-85	23	26	Rowley, . .	.003-53
5	10	Middleton, . .	.004-79	28	27	Swampscott, . .	.003-19
17	11	Lynn, . .	.004-74	27	28	Newburyport, . .	.003-13
11	12	Gloucester, . .	.004-64	31	29	Boxford, . .	.003-11
7	13	North Andover, . .	.004-61	29	30	Beverly, . .	.003-03
14	14	Andover, . .	.004-51	30	31	Wenham, . .	.002-58
15	15	Ipswich, . .	.004-33	32	32	Hamilton, . .	.002-32
20	16	Essex, . .	.004-30	33	33	Manchester, . .	.001-29
13	17	Lawrence, . .	.004-29	34	34	Nahant, . .	.001-18

## FRANKLIN COUNTY.

5	1	Rowe, . .	\$.007-66	14	14	Conway, . .	\$.005-35
1	2	Buckland, . .	.007-26	13	15	Monroe, . .	.005-13
2	3	Charlemont, . .	.007-23	22	16	Northfield, . .	.004-64
3	4	Colrain, . .	.007-01	15	17	Ashfield, . .	.004-61
12	5	Erving, . .	.006-83	18	18	Deerfield, . .	.004-18
9	6	Orange, . .	.006-81	25	19	Wendell, . .	.004-15
4	7	Heath, . .	.006-54	24	20	Warwick, . .	.004-02
11	8	Montague, . .	.006-34	7	21	Shutesbury, . .	.003-79
19	9	Hawley, . .	.006-15	21	22	Leyden, . .	.003-70
6	10	New Salem, . .	.006-11	23	23	Leverett, . .	.003-37
8	11	Shelburne, . .	.005-70	26	24	Gill, . .	.003-30
17	12	Sunderland, . .	.005-58	20	25	Whately, . .	.002-90
16	13	Greenfield, . .	.005-55	10	26	Bernardston, . .	.002-32



## SCHOOL RETURNS.

cix

## HAMPDEN COUNTY.

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
2	1	Palmer, . . .	\$.007-64	15	13	Holyoke, . . .	\$.004-88
6	2	E. Longmeadow, . .	.007-48	4	14	Wales, . . .	.004-71
1	3	Granville, . . .	.006-92	14	15	Tolland, . . .	.004-63
3	4	Monson, . . .	.006-69	22	16	Southwick, . . .	.004-36
7	5	Wilbraham, . . .	.005-87	21	17	Springfield, . . .	.004-33
5	6	Ludlow, . . .	.005-68	12	18	Montgomery, . . .	.004-30
9	7	Westfield, . . .	.005-61	16	19	Blandford, . . .	.004-29
8	8	West Springfield, . .	.005-50	19	20	Hampden, . . .	.004-10
13	9	Chester, . . .	.005-26	20	21	Longmeadow, . . .	.003-91
18	10	Chicopee, . . .	.005-18	11	22	Russell, . . .	.003-61
17	11	Brimfield, . . .	.005-14	23	23	Holland, . . .	.002-56
10	12	Agawam, . . .	.005-13				

## HAMPSHIRE COUNTY.

1	1	South Hadley, . . .	\$.007-80	19	13	Southampton, . .	\$.004-25
4	2	Huntington, . . .	.006-29	17	14	Chesterfield, . . .	.003-91
3	3	Ware, . . .	.006-13	12	15	Greenwich, . . .	.003-88
2	4	Williamsburg, . . .	.005-92	16	16	Pelham, . . .	.003-83
9	5	Granby, . . .	.005-40	21	17	Hatfield, . . .	.003-52
5	6	Belchertown, . . .	.005-34	15	18	Hadley, . . .	.003-46
6	7	Easthampton, . . .	.005-33	20	19	Plainfield, . . .	.003-16
10	8	Amherst, . . .	.005-03	14	20	Worthington, . . .	.002-94
11	9	Northampton, . . .	.005-02	8	21	Middlefield, . . .	.002-74
7	10	Westhampton, . . .	.005-01	13	22	Enfield, . . .	.002-66
23	11	Cummington, . . .	.004-69	22	23	Goshen, . . .	.002-60
18	12	Prescott, . . .	.004-38				

## MIDDLESEX COUNTY.

1	1	Holliston, . . .	\$.006-65	34	23	Chelmsford, . . .	\$.004-86
4	2	Wayland, . . .	.006-46	28	24	Ayer, . . .	.004-81
6	3	Hudson, . . .	.006-43	21	25	Ashby, . . .	.004-79
5	4	Westford, . . .	.006-33	25	26	Somerville, . . .	.004-78
3	5	Tyngsborough, . . .	.006-29	23	27	Townsend, . . .	.004-77
2	6	Ashland, . . .	.006-13	33	28	Wakefield, . . .	.004-77
9	7	Pepperell, . . .	.006-11	29	29	Medford, . . .	.004-76
14	8	Malden, . . .	.005-95	27	30	Reading, . . .	.004-72
10	9	North Reading, . . .	.005-84	24	31	Billerica, . . .	.004-68
12	10	Natick, . . .	.005-84	41	32	Dunstable, . . .	.004-37
16	11	Littleton, . . .	.005-84	32	33	Acton, . . .	.004-29
11	12	Marlborough, . . .	.005-82	39	34	Maynard, . . .	.004-24
18	13	Concord, . . .	.005-73	42	35	Lowell, . . .	.004-23
15	14	Everett, . . .	.005-51	38	36	Arlington, . . .	.004-19
22	15	Melrose, . . .	.005-50	43	37	Cambridge, . . .	.004-12
8	16	Hopkinton, . . .	.005-41	35	38	Bedford, . . .	.004-10
20	17	Wilmington, . . .	.005-37	40	39	Stoneham, . . .	.004-07
19	18	Woburn, . . .	.005-34	45	40	Winchester, . . .	.004-04
7	19	Sudbury, . . .	.005-28	30	41	Sherborn, . . .	.003-98
26	20	Dracut, . . .	.005-26	37	42	Waltham, . . .	.003-92
17	21	Framingham, . . .	.005-21	13	43	Shirley, . . .	.003-81
31	22	Tewksbury, . . .	.005-04	51	44	Belmont, . . .	.003-77

## BOARD OF EDUCATION.

## MIDDLESEX COUNTY — CONCLUDED.

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
44	45	Lexington, .	\$.003-76	47	50	Burlington, .	.003-13
36	46	Boxborough, .	.003-61	50	51	Newton, .	.003-13
49	47	Carlisle, .	.003-40	46	52	Weston, .	.002-91
48	48	Watertown, .	.003-36	53	53	Stow, .	.002-87
54	49	Groton, .	.003-19	52	54	Lincoln, .	.002-03

## NANTUCKET COUNTY.

		Nantucket, . . . . .	\$.002-08
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## NORFOLK COUNTY.

2	1	Wrentham, .	\$.007-97	12	15	Norwood, .	\$.004-83
3	2	Weymouth, .	.006-75	8	16	Westwood, .	.004-82
1	3	Holbrook, .	.006-31	14	17	Millis, .	.004-62
6	4	Medway, .	.006-09	21	18	Dedham, .	.004-59
11	5	Norfolk, .	.006-03	18	19	Hyde Park, .	.004-44
9	6	Foxborough, .	.005-66	16	20	Franklin, .	.004-28
10	7	Walpole, .	.005-53	20	21	Canton, .	.004-24
4	8	Randolph, .	.005-50	22	22	Medfield, .	.003-82
5	9	Bellingham, .	.005-48	27	23	Sharon, .	.003-19
17	10	Braintree, .	.005-25	23	24	Dover, .	.003-11
7	11	Avon, .	.005-07	26	25	Wellesley, .	.002-99
13	12	Quincy, .	.005-00	24	26	Cohasset, .	.002-67
15	13	Stoughton, .	.004-94	25	27	Milton, .	.002-64
19	14	Needham, .	.004-91	28	28	Brookline, .	.001-74

## PLYMOUTH COUNTY.

1	1	Abington, .	\$.007-54	19	15	Rochester, .	\$.004-20
4	2	E. Bridgewater, .	.006-45	16	16	W. Bridgewater, .	.004-18
3	3	Rockland, .	.006-25	22	17	Carver, .	.004-11
9	4	Norwell, .	.005-99	15	18	Pembroke, .	.004-07
2	5	Bridgewater, .	.005-89	20	19	Lakeville, .	.004-01
5	6	Whitman, .	.005-77	14	20	Wareham, .	.003-79
10	7	Middleborough, .	.005-46	17	21	Halifax, .	.003-73
6	8	Hanover, .	.005-27	24	22	Duxbury, .	.003-25
18	9	Marshfield, .	.005-23	23	23	Scituate, .	.003-16
8	10	Hanson, .	.005-21	25	24	Marion, .	.002-66
11	11	Hingham, .	.005-13	26	25	Mattapoisett, .	.002-47
7	12	Brockton, .	.005-08	21	26	Plympton, .	.002-28
13	13	Kingston, .	.004-68	27	27	Hull, .	.001-36
12	14	Plymouth, .	.004-66				

## SUFFOLK COUNTY.

1	1	Chelesa, .	\$.004-66	3	2	Winthrop, .	\$.003-63
2	2	Revere, .	.004-60	4	4	Boston, .	.002-32

## WORCESTER COUNTY.

For 1898-1899, by the State valuation of 1898.				For 1899-1900, by the State valuation of 1899.			
		TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.			TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
1	1	West Boylston,	\$.011-09	17	31	Blackstone,	\$.005-05
2	2	Spencer, . . .	.008-85	44	32	Milford, . . .	.004-94
11	3	Warren, . . .	.008-35	37	33	Athol, . . .	.004-93
6	4	Holden, . . .	.007-34	39	34	Uxbridge, . . .	.004-93
7	5	Grafton, . . .	.007-29	33	35	Leicester, . . .	.004-89
13	6	Templeton, . . .	.007-01	48	36	Winchendon, . . .	.004-88
9	7	Brookfield, . . .	.006-98	55	37	Dana, . . .	.004-87
4	8	Auburn, . . .	.006-92	27	38	Southborough, . . .	.004-86
5	9	Northbridge, . . .	.006-70	38	39	Fitchburg, . . .	.004-79
3	10	North Brookfield, . . .	.006-64	32	40	Barre, . . .	.004-74
22	11	Sturbridge, . . .	.006-63	52	41	Lunenburg, . . .	.004-71
12	12	Dudley, . . .	.006-56	45	42	Bolton, . . .	.004-70
10	13	Gardner, . . .	.006-39	43	43	Charlton, . . .	.004-64
8	14	Upton, . . .	.006-02	41	44	Shrewsbury, . . .	.004-60
16	15	Northborough, . . .	.005-97	49	45	Princeton, . . .	.004-51
30	16	Southbridge, . . .	.005-96	46	46	Worcester, . . .	.004-50
25	17	Ashburnham, . . .	.005-94	54	47	Paxton, . . .	.004-49
28	18	Westminster, . . .	.005-93	36	48	Hardwick, . . .	.004-48
21	19	Leominster, . . .	.005-76	51	49	Petersham, . . .	.004-25
35	20	West Brookfield, . . .	.005-75	24	50	Sterling, . . .	.004-18
15	21	Hubbardston, . . .	.005-74	34	51	Boylston, . . .	.004-08
18	22	Millbury, . . .	.005-68	53	52	Harvard, . . .	.003-99
20	23	Oxford, . . .	.005-65	56	53	New Braintree, . . .	.003-82
26	24	Mendon, . . .	.005-61	29	54	Oakham, . . .	.003-67
23	25	Sutton, . . .	.005-58	57	55	Berlin, . . .	.003-59
31	26	Westborough, . . .	.005-53	50	56	Phillipston, . . .	.003-39
42	27	Rutland, . . .	.005-41	58	57	Lancaster, . . .	.003-19
19	28	Douglas, . . .	.005-27	14	58	Royalston, . . .	.003-12
47	29	Webster, . . .	.005-26	59	59	Hopedale, . . .	.002-25
40	30	Clinton, . . .	.005-22				

## GRADUATED VALUATION TABLE.

*Showing the different counties in the State, numerically arranged, according to the proportion of their taxable property appropriated for the support of public schools for the year 1899-1900.*

NOTE. — The percentage which is expressed in the following table as so many mills and hundredths of mills on a dollar may be transformed at once to dollars of tax on a thousand dollars of valuation, — Franklin County, for instance, appropriating \$5.62 per thousand dollars of valuation, and so on to the end of the table.

For 1898-1899, by the State valuation of 1898.	For 1899-1900, by the State valuation of 1899.	COUNTIES.	Percentage of valuation appropriated to public schools — equivalent to mills and hundredths of mills.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.	Valuation of 1899.
1	1	Franklin, . . .	\$.005-62	\$126,467 39	\$22,490,005
4	2	Hampshire, . . .	.005-18	167,578 01	32,337,048
2	3	Berkshire, . . .	.005-16	295,645 10	57,271,448
5	4	Worcester, . . .	.004-97	1,184,874 45	238,030,978
3	5	Plymouth, . . .	.004-80	375,884 19	78,212,386
6	6	Hampden, . . .	.004-78	683,422 05	142,920,631
7	7	Middlesex, . . .	.004-44	2,248,187 70	505,593,566
9	8	Essex, . . .	.004-21	1,112,105 12	264,093,840
8	9	Barnstable, . . .	.004-14	95,571 11	23,040,063
10	10	Bristol, . . .	.004-08	733,115 73	179,575,130
11	11	Norfolk, . . .	.003-36	655,423 74	194,618,252
12	12	Dukes, . . .	.002-96	12,516 67	4,228,156
13	13	Suffolk, . . .	.002-39	2,712,204 53	1,130,265,681
14	14	Nantucket, . . .	.002-08	6,984 37	3,344,038

## AGGREGATE FOR THE STATE.

STATE, . . . . .	\$.003-61	\$10,409,980 16	\$2,876,021,222
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## III. GRADUATED ATTENDANCE TABLE.

*In which all the towns in the State are numerically arranged according to the AVERAGE ATTENDANCE of the children upon the public schools for the year 1899-1900.*

TOWNS AND CITIES.					TOWNS AND CITIES.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	Melrose, .	1,960	2,357	1.20-25	41	Upton, .	280	278	.99-28
2	Conway, .	205	225	1.09-75	42	Edgartown, .	124	123	.99-19
3	Dennis, .	369	400	1.08-40	43	Bridgewater, .	673	662	.98-36
4	Merrimac, .	350	379	1.08-28	44	Medfield, .	228	224	.98-24
5	Tolland, .	56	60	1.07-14	45	Framingham, .	1,849	1,816	.98-21
6	Ashland, .	270	289	1.07-03	46	W. Stockbridge, .	202	198	.98-01
7	West Tisbury, .	43	46	1.06-97	47	Middlefield, .	98	96	.97-95
8	Marblehead, .	1,049	1,121	1.06-86	48	Avon, .	269	263	.97-76
9	Yarmouth, .	177	188	1.06-21	49	Tisbury, .	130	127	.97-69
10	Winthrop, .	844	893	1.05-80	50	Abington, .	671	655	.97-61
11	Ashburnham, .	314	332	1.05-73	51	Concord, .	776	757	.97-55
12	Chelmsford, .	598	628	1.05-01	52	Chatham, .	241	235	.97-51
13	Medway, .	448	470	1.04-91	53	Dalton, .	523	510	.97-51
14	Barnstable, .	612	642	1.04-90	54	Brookline, .	2,934	2,859	.97-44
15	Westminster, .	185	194	1.04-86	55	Monson, .	563	548	.97-33
16	Granby, .	126	132	1.04-76	56	Sterling, .	185	180	.97-29
17	Westborough, .	622	650	1.04-50	57	Saugus, .	951	924	.97-16
18	Natick, .	1,603	1,670	1.04-17	58	Weston, .	209	203	.97-12
19	Georgetown, .	299	311	1.04-01	59	Reading, .	832	807	.96-99
20	Needham, .	605	623	1.02-97	60	Milton, .	1,110	1,076	.96-93
21	Lexington, .	553	567	1.02-53	61	Erving, .	188	182	.96-80
22	Hopkinton, .	430	440	1.02-32	62	Easton, .	912	880	.96-49
23	Monroe, .	45	46	1.02-22	63	Boxborough, .	57	55	.96-49
24	Holliston, .	409	418	1.02-20	64	Greenfield, .	1,289	1,243	.96-43
25	Ashfield, .	149	152	1.02-01	65	Shelburne, .	218	210	.96-33
26	Orange, .	999	1,016	1.01-70	66	Holbrook, .	409	394	.96-33
27	Rockland, .	964	974	1.01-65	67	Groton, .	353	340	.96-31
28	Princeton, .	122	124	1.01-63	68	Marion, .	128	113	.96-09
29	Amherst, .	642	651	1.01-40	69	Orleans, .	177	170	.96-04
30	Belmont, .	512	518	1.01-17	70	Foxborough, .	532	510	.95-86
31	Charlemont, .	173	176	1.01-07	71	Randolph, .	624	597	.95-67
32	Winchester, .	1,155	1,166	1.00-95	72	Mendon, .	136	130	.95-58
33	Hopedale, .	233	234	1.00-42	73	Andover, .	948	906	.95-56
34	Braintree, .	987	990	1.00-30	74	South Hadley, .	790	754	.95-44
35	Gloucester, .	4,017	4,027	1.00-24	75	Nantucket, .	329	313	.95-13
36	Maynard, .	521	521	1.00-00	76	Gt. Barrington, .	819	777	.94-87
37	Revere, .	1,869	1,858	.99-41	77	Hanover, .	292	277	.94-86
38	Weymouth, .	1,947	1,934	.99-33	78	North Reading, .	134	127	.94-77
39	Hudson, .	895	889	.99-32	79	Wakefield, .	1,732	1,641	.94-74
40	Hingham, .	723	718	.99-30	80	Norwood, .	1,045	989	.94-64

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
81	Littleton, .	200	189	.94-50	141	Lenox, .	556	490	.88-12
82	Sandwich, .	210	198	.94-28	142	Beverly, .	2,273	2,003	.88-12
83	Stoneham, .	956	899	.94-03	143	Whately, .	84	74	.88-09
84	E. Bridgewater, .	498	466	.93-57	144	Scituate, .	360	317	.88-05
85	Heath, .	93	87	.93-54	145	Oakham, .	100	88	.88-00
86	Groveland, .	410	383	.93-41	146	Dunstable, .	68	51	.87-93
87	Walpole, .	555	518	.93-33	147	Belchertown, .	405	355	.87-65
88	Provincetown, .	749	699	.93-32	148	Swampscott, .	653	572	.87-59
89	Townsend, .	267	249	.93-25	149	New Salem, .	153	134	.87-58
90	Acton, .	279	260	.93-18	150	Gardner, .	1,730	1,514	.87-51
91	Whitman, .	1,080	1,004	.92-96	151	Uxbridge, .	608	532	.87-50
92	Everett, .	4,381	4,069	.92-87	152	Chilmark, .	40	35	.87-50
93	Sudbury, .	180	167	.92-77	153	Pittsfield, .	4,119	3,600	.87-39
94	Arlington, .	1,364	1,263	.92-59	154	Northborough, .	373	326	.87-39
95	Truro, .	135	125	.92-59	155	Bourne, .	315	275	.87-30
96	Wayland, .	418	387	.92-58	156	Huntington, .	297	259	.87-20
97	Nahant, .	107	99	.92-52	157	Harwich, .	353	307	.86-96
98	Somerville, .	9,485	8,776	.92-52	158	Norwell, .	245	213	.86-93
99	Norfolk, .	131	121	.92-36	159	Wellesley, .	671	583	.86-88
100	Plymouth, .	1,471	1,358	.92-31	160	Northbridge, .	1,213	1,052	.86-72
101	Manchester, .	360	331	.91-94	161	Cheshire, .	193	167	.86-52
102	Middleborough, .	1,043	959	.91-94	162	Petersham, .	111	96	.86-48
103	Mansfield, .	667	613	.91-90	163	Ayer, .	473	409	.86-46
104	Easthampton, .	857	784	.91-48	164	Springfield, .	9,738	8,419	.86-45
105	Dedham, .	1,299	1,188	.91-45	165	Templeton, .	587	506	.86-20
106	Hubbardston, .	199	182	.91-45	166	Warwick, .	114	98	.85-96
107	Leicester, .	568	519	.91-37	167	Athol, .	1,042	895	.85-89
108	Shrewsbury, .	243	222	.91-35	168	Russell, .	127	109	.85-82
109	Brewster, .	127	116	.91-33	169	Gosnold, .	21	18	.85-71
110	Wellfleet, .	137	125	.91-24	170	Sandisfield, .	104	89	.85-57
111	Pepperell, .	704	642	.91-19	171	Milford, .	1,474	1,260	.85-48
112	Newbury, .	202	184	.91-08	172	Wareham, .	594	507	.85-35
113	Kingston, .	333	303	.90-99	173	Medford, .	3,197	2,728	.85-32
114	W. Boylston, .	465	423	.90-96	174	Windsor, .	88	75	.85-22
115	N. Attleboro, .	1,227	1,112	.90-62	175	Colrain, .	282	240	.85-10
116	W Springfield, .	1,403	1,271	.90-59	176	W. Brookfield, .	220	187	.85-00
117	Dana, .	105	95	.90-47	177	Bolton, .	120	102	.85-00
118	Leominster, .	1,918	1,733	.90-35	178	Otis, .	60	51	.84-99
119	Cummington, .	134	121	.90-29	179	Lynn, .	10,107	8,582	.84-91
120	Ashby, .	134	121	.90-29	180	North Andover, .	767	651	.84-87
121	Hadley, .	226	204	.90-26	181	Holden, .	496	421	.84-87
122	Savoy, .	91	82	.90-10	182	Brockton, .	6,700	5,668	.84-59
123	Fairhaven, .	563	507	.90-05	183	Chelsea, .	5,591	4,716	.84-34
124	Wrentham, .	451	406	.90-02	184	Topshfield, .	159	134	.84-27
125	Douglas, .	328	295	.89-93	185	Westford, .	438	369	.84-24
126	Essex, .	304	273	.89-80	186	Warren, .	767	646	.84-22
127	Cohasset, .	401	360	.89-77	187	Palmer, .	1,155	972	.84-15
128	Danvers, .	1,398	1,252	.89-55	188	Billerica, .	473	393	.84-14
129	Worthington, .	124	111	.89-51	189	Carver, .	170	143	.84-11
130	Mattapoisett, .	140	125	.89-28	190	W. Newbury, .	226	190	.84-07
131	Florida, .	93	83	.89-24	191	Swansea, .	258	216	.83-72
132	Sunderland, .	111	99	.89-18	192	Lunenburg, .	215	180	.83-72
133	Cambridge, .	13,780	12,285	.89-15	193	Montgomery, .	49	41	.83-67
134	Stockbridge, .	394	351	.89-08	194	Blandford, .	165	138	.83-63
135	Hinsdale, .	246	219	.89-02	195	Lancaster, .	415	347	.83-61
136	Williamsburg, .	380	338	.88-94	196	Malden, .	5,858	4,894	.83-54
137	Newton, .	5,155	4,585	.88-94	197	Taunton, .	5,021	4,189	.83-42
138	Gay Head, .	35	31	.88-57	198	Worcester, .	20,159	16,765	.83-16
139	Ipswich, .	686	607	.88-48	199	Quincy, .	4,999	4,138	.82-77
140	Marshfield, .	263	232	.88-21	200	Williamstown, .	905	748	.82-65

## SCHOOL RETURNS.

CXV

TOWNS AND CITIES.				TOWNS AND CITIES.			
	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
201	Southampton, .	196	162	261	Oxford, .	486	368
202	Hanson, .	205	169	262	Granville, .	181	137
203	Northfield, .	238	196	263	Boylston, .	106	80
204	Montague, .	1,190	978	264	Deerfield, .	293	221
205	Southwick, .	185	152	265	Agawam, .	462	348
206	Barre, .	316	259	266	Methuen, .	1,340	1,009
207	Peabody, .	1,870	1,532	267	Wales, .	141	106
208	Southborough, .	309	253	268	Royalston, .	141	106
209	Brookfield, .	558	456	269	Shirley, .	238	178
210	Rockport, .	826	675	270	Wilmington, .	315	235
211	Freetown, .	224	183	271	Richmond, .	148	110
212	Bedford, .	191	156	272	Salisbury, .	252	187
213	W.Bridgewater, .	291	237	273	Shutesbury, .	54	40
214	Winchendon, .	913	743	274	Hampden, .	108	80
215	Buckland, .	284	231	275	Tewksbury, .	493	364
216	E. Longm'dow, .	333	270	276	Berkley, .	168	124
217	Sturbridge, .	316	256	277	New Marlboro', .	205	150
218	Stow, .	142	115	278	Burlington, .	67	49
219	Adams, .	2,179	1,757	279	Haverhill, .	5,886	4,298
220	Rutland, .	222	179	280	Acushnet, .	185	135
221	Prescott, .	67	54	281	Boxford, .	96	70
222	Millbury, .	829	668	282	Norton, .	251	183
223	Westhampton, .	108	87	283	Wilbraham, .	277	201
224	Millis, .	231	186	284	Northampton, .	3,035	2,200
225	Sharon, .	287	231	285	Lee, .	656	475
226	Hull, .	162	130	286	Franklin, .	763	550
227	Duxbury, .	267	214	287	Brimfield, .	162	116
228	Chester, .	261	209	288	Lanesborough, .	151	108
229	Rowley, .	190	152	289	Pelham, .	107	76
230	Hatfield, .	225	180	290	Charlton, .	341	242
231	Wenham, .	133	106	291	Enfield, .	206	146
232	Westfield, .	2,068	1,648	292	Tyngsborough, .	103	73
233	Falmouth, .	447	356	293	Stoughton, .	923	654
234	Plympton, .	54	43	294	Goshen, .	65	46
235	Somerset, .	388	308	295	Egremont, .	109	77
236	Harvard, .	150	119	296	Lincoln, .	166	117
237	Boston, .	86,505	68,594	297	Watertown, .	1,477	1,040
238	Greenwich, .	72	57	298	Hamilton, .	260	183
239	Pembroke, .	191	151	299	Middleton, .	128	90
240	Bellingham, .	298	235	300	Carlisle, .	80	56
241	Leyden, .	66	52	301	Dracut, .	514	358
242	Sheffield, .	306	241	302	Becket, .	184	128
243	Grafton, .	921	724	303	Mashpee, .	71	49
244	Blackstone, .	899	706	304	Cottage City, .	212	146
245	Dartmouth, .	537	419	305	Hyde Park, .	2,126	1,460
246	Barnardston, .	109	85	306	Lynnfield, .	137	94
247	Plainfield, .	77	60	307	Rehoboth, .	313	214
248	Attleborough, .	1,930	1,493	308	Seekonk, .	233	159
249	Eastham, .	75	58	309	Halifax, .	81	55
250	Chesterfield, .	92	71	310	Waltham, .	3,832	2,598
251	Dighton, .	274	211	311	Monterey, .	96	65
252	Westwood, .	187	144	312	Berlin, .	164	111
253	Woburn, .	3,147	2,423	313	Longmeadow, .	133	90
254	Clinton, .	2,355	1,813	314	Tyringham, .	64	43
255	Raynham, .	256	197	315	New Braintree, .	91	61
256	Hawley, .	73	56	316	Sherrborn, .	194	130
257	Marlborough, .	2,968	2,263	317	Lowell, .	14,449	9,651
258	Hancock, .	79	60	318	Mt. Washington, .	30	20
259	Gill, .	120	91	319	Ware, .	1,421	938
260	Leverett, .	124	94	320	Rochester, .	164	108

## BOARD OF EDUCATION.

TOWNS AND CITIES.				TOWNS AND CITIES.			
		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.
		Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	
321	Lakeville, .	136	89	338	Fitchburg, .	5,679	3,487
322	Salem, .	6,079	3,973	339	Paxton, .	72	44
323	Auburn, .	352	230	340	Washington, .	77	47
324	Ludlow, .	565	368	341	N. Brookfield, .	968	589
325	Chicopee, .	3,072	1,989	342	Spencer, .	1,663	1,002
326	Lawrence, .	10,045	6,479	343	Fall River, .	19,261	11,362
327	Westport, .	539	346	344	Hardwick, .	553	326
328	Wendell, .	100	64	345	Amesbury, .	1,629	953
329	New Bedford, .	10,716	6,812	346	Sutton, .	620	358
330	Rowe, .	85	54	347	Peru, .	52	30
331	North Adams, .	4,315	2,726	348	Holyoke, .	9,228	4,972
332	Canton, .	833	526	349	Alford, .	39	21
333	Newburyport, .	2,269	1,427	350	Dudley, .	671	327
334	Phillipston, .	66	41	351	Holland, .	25	12
335	New Ashford, .	21	13	352	Southbridge, .	2,018	882
336	Dover, .	126	78	353	Webster, .	1,587	621
337	Clarksburg, .	259	160				



## GRADUATED ATTENDANCE TABLE.

*In which all the towns in the respective counties in the State are numerically arranged according to the AVERAGE ATTENDANCE of their children upon the public schools for the year 1899-1900.*

## BARNSTABLE COUNTY.

TOWNS AND CITIES.				TOWNS AND CITIES.					
		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	Dennis, . .	369	400	1.08-40	9	Brewster, . .	127	116	.91-33
2	Yarmouth, . .	177	188	1.06-21	10	Wellfleet, . .	137	125	.91-24
3	Barnstable, . .	612	642	1.04-90	11	Bourne, . .	315	275	.87-30
4	Chatham, . .	241	235	.97-51	12	Harwich, . .	353	307	.86-96
5	Orleans, . .	177	170	.96-04	13	Falmouth, . .	447	356	.79-64
6	Sandwich, . .	210	198	.94-28	14	Eastham, . .	75	58	.77-33
7	Provincetown, . .	749	699	.93-32	15	Mashpee, . .	71	49	.69-01
8	Truro, . .	135	125	.92-59					

## BERKSHIRE COUNTY.

1	W.Stockb'dge, . .	202	198	.98-01	17	Hancock, . .	79	60	.75-94
2	Dalton, . .	523	510	.97-51	18	Richmond, . .	148	110	.74-32
3	Gt. Barrington, . .	819	777	.94-87	19	New Marlboro', . .	205	150	.73-17
4	Savoy, . .	91	82	.90-10	20	Lee, . .	656	475	.72-40
5	Florida, . .	93	83	.89-24	21	Lanesborough, . .	151	108	.71-52
6	Stockbridge, . .	394	351	.89-08	22	Egremont, . .	109	77	.70-64
7	Hinsdale, . .	246	219	.89-02	23	Becket, . .	184	128	.69-56
8	Lenox, . .	566	490	.88-12	24	Monterey, . .	96	65	.67-70
9	Pittsfield, . .	4,119	3,600	.87-39	25	Tyringham, . .	64	43	.67-18
10	Cheshire, . .	193	167	.86-52	26	Mt. Washington, . .	30	20	.66-66
11	Sandisfield, . .	104	89	.85-57	27	North Adams, . .	4,315	2,726	.63-17
12	Windsor, . .	88	75	.85-22	28	New Ashford, . .	21	13	.61-90
13	Otis, . .	60	51	.84-99	29	Clarksburg, . .	259	160	.61-77
14	Williamstown, . .	905	748	.82-65	30	Washington, . .	77	47	.61-03
15	Adams, . .	2,179	1,757	.80-63	31	Peru, . .	52	30	.57-69
16	Sheffield, . .	306	241	.78-75	32	Alford, . .	39	21	.53-84

## BRISTOL COUNTY.

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	Easton, . . .	912	880	.96-49	11	Dighton, . . .	274	211	.77-00
2	Mansfield, . . .	667	613	.91-90	12	Raynham, . . .	256	197	.76-95
3	No. Attleboro', . .	1,227	1,112	.90-62	13	Berkley, . . .	168	124	.73-80
4	Fairhaven, . . .	563	507	.90-05	14	Acushnet, . . .	185	135	.72-97
5	Swansea, . . .	258	216	.83-72	15	Norton, . . .	251	183	.72-90
6	Taunton, . . .	5,021	4,189	.83-42	16	Rehoboth, . . .	313	214	.68-37
7	Freetown, . . .	224	183	.81-69	17	Seekonk, . . .	233	159	.68-24
8	Somerset, . . .	388	308	.79-38	18	Westport, . . .	539	346	.64-19
9	Dartmouth, . . .	537	419	.78-02	19	New Bedford, . .	10,716	6,812	.63-56
10	Attleborough, . .	1,930	1,493	.77-35	20	Fall River, . . .	19,261	11,362	.58-98

## DUKES COUNTY.

1	W. Tisbury, . . .	43	46	1.06-97	5	Chilmark, . . .	40	35	.87-50
2	Edgartown, . . .	124	123	.99-19	6	Gosnold, . . .	21	18	.85-71
3	Tisbury, . . .	130	127	.97-69	7	Cottage City, . .	212	146	.68-86
4	Gay Head, . . .	35	31	.88-57					

## ESSEX COUNTY.

1	Merrimac, . . .	350	379	1.08-28	18	Topsfield, . . .	159	134	.84-27
2	Marblehead, . . .	1,049	1,121	1.06-86	19	West Newbury, . .	226	190	.84-07
3	Georgetown, . . .	299	311	1.04-01	20	Peabody, . . .	1,870	1,532	.81-92
4	Gloucester, . . .	4,017	4,027	1.00-24	21	Rockport, . . .	826	675	.81-71
5	Saugus, . . .	951	924	.97-16	22	Rowley, . . .	190	152	.80-00
6	Andover, . . .	948	906	.95-56	23	Wenham, . . .	133	106	.79-69
7	Groveland, . . .	410	383	.93-41	24	Methuen, . . .	1,340	1,009	.75-29
8	Nahant, . . .	107	99	.92-52	25	Salisbury, . . .	252	187	.74-20
9	Manchester, . . .	360	331	.91-94	26	Haverhill, . . .	5,886	4,298	.73-02
10	Newbury, . . .	202	184	.91-08	27	Boxford, . . .	96	70	.72-91
11	Essex, . . .	304	273	.89-80	28	Hamilton, . . .	260	183	.70-38
12	Danvers, . . .	1,398	1,252	.89-55	29	Middleton, . . .	128	90	.70-31
13	Ipswich, . . .	686	607	.88-48	30	Lynnfield, . . .	137	94	.68-61
14	Beverly, . . .	2,273	2,003	.88-12	31	Salem, . . .	6,079	3,973	.65-35
15	Swampscott, . . .	653	572	.87-59	32	Lawrence, . . .	10,045	6,479	.64-49
16	Lynn, . . .	10,107	8,582	.84-91	33	Newburyport, . .	2,269	1,427	.62-89
17	North Andover, . .	767	651	.84-87	34	Amesbury, . . .	1,629	953	.58-50

## FRANKLIN COUNTY.

1	Conway, . . .	205	225	1.09-75	7	Greenfield, . . .	1,289	1,243	.96-43
2	Monroe, . . .	45	46	1.02-22	8	Shelburne, . . .	218	210	.96-33
3	Ashfield, . . .	149	152	1.02-01	9	Heath, . . .	93	87	.93-54
4	Orange, . . .	999	1,016	1.01-70	10	Sunderland, . . .	111	99	.89-18
5	Charlemont, . . .	173	176	1.01-07	11	Whately, . . .	84	74	.88-09
6	Erving, . . .	188	182	.96-80	12	New Salem, . . .	153	134	.87-58

# SCHOOL RETURNS.

cxix

## FRANKLIN COUNTY — CONCLUDED.

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.
13	Warwick, . .	114	98	.85-96	20	Hawley, . .	73	56	.76-71
14	Colrain, . .	282	240	.85-10	21	Gill, . .	120	91	.75-83
15	Northfield, . .	238	196	.82-35	22	Leverett, . .	124	94	.75-80
16	Montague, . .	1,190	978	.82-18	23	Deerfield, . .	293	221	.75-42
17	Buckland, . .	284	231	.81-33	24	Shntesbury, . .	54	40	.74-07
18	Leyden, . .	66	52	.78-78	25	Wendell, . .	100	64	.64-00
19	Bernardston, . .	109	85	.77-97	26	Rowe, . .	85	54	.63-52

## HAMPDEN COUNTY.

1	Tolland, . .	56	60	1.07-14	13	Granville, . .	181	137	.75-69
2	Monson, . .	563	548	.97-33	14	Agawam, . .	462	348	.75-32
3	W. Springfield, . .	1,403	1,271	.90-59	15	Wales, . .	141	106	.75-17
4	Springfield, . .	9,738	8,419	.86-45	16	Hampden, . .	108	80	.74-07
5	Russell, . .	127	109	.85-82	17	Wilbraham, . .	277	201	.72-56
6	Palmer, . .	1,155	972	.84-15	18	Brimfield, . .	162	116	.71-60
7	Montgomery, . .	49	41	.83-67	19	Longmeadow, . .	133	90	.67-66
8	Blandford, . .	165	138	.83-63	20	Ludlow, . .	565	368	.65-13
9	Southwick, . .	185	152	.82-16	21	Chicopee, . .	3,072	1,989	.64-74
10	E. Longmeadow, . .	333	270	.81-08	22	Holyoke, . .	9,228	4,972	.53-87
11	Chester, . .	261	209	.80-07	23	Holland, . .	25	12	.48-00
12	Westfield, . .	2,068	1,648	.79-69					

## HAMPSHIRE COUNTY.

1	Granby, . .	126	132	1.04-76	13	Prescott, . .	67	54	.80-59
2	Amherst, . .	642	651	1.01-40	14	Westhampton, . .	108	87	.80-55
3	Middlefield, . .	98	96	.97-95	15	Hatfield, . .	225	180	.80-00
4	South Hadley, . .	790	754	.95-44	16	Greenwich, . .	72	57	.79-16
5	Easthampton, . .	857	784	.91-48	17	Plainfield, . .	77	60	.77-92
6	Cummington, . .	134	121	.90-29	18	Chesterfield, . .	92	71	.77-17
7	Hadley, . .	226	204	.90-26	19	Northampton, . .	3,035	2,200	.72-48
8	Worthington, . .	124	111	.89-51	20	Pelham, . .	107	76	.71-02
9	Williamsburg, . .	380	338	.88-94	21	Enfield, . .	206	146	.70-87
10	Belchertown, . .	405	355	.87-65	22	Goshen, . .	65	46	.70-76
11	Huntington, . .	297	259	.87-20	23	Ware, . .	1,421	938	.66-00
12	Southampton, . .	196	162	.82-65					

## MIDDLESEX COUNTY.

1	Melrose, . .	1,960	2,357	1.20-25	7	Holliston, . .	409	418	1.02-20
2	Ashland, . .	270	289	1.07-03	8	Belmont, . .	512	518	1.01-17
3	Chelmsford, . .	598	628	1.05-01	9	Winchester, . .	1,155	1,166	1.00-95
4	Natick, . .	1,603	1,670	1.04-07	10	Maynard, . .	521	521	1.00-00
5	Lexington, . .	553	567	1.02-53	11	Hudson, . .	895	889	.99-32
6	Hopkinton, . .	430	440	1.02-32	12	Frammingham, . .	1,849	1,816	.98-21

## MIDDLESEX COUNTY—CONCLUDED.

TOWNS AND CITIES.				TOWNS AND CITIES.			
No. of children between 5 and 15 years of age in each town.				No of children between 5 and 15 years of age in each town.			
Average attendance upon school.				Average attendance upon school.			
Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			
13	Concord, . .	776	757	34	Ayer, . .	473	409
14	Weston, . .	209	203	35	Medford, . .	3,197	2,728
15	Reading, . .	832	807	36	Westford, . .	438	369
16	Boxborough, . .	57	55	37	Billerica, . .	473	398
17	Groton, . .	353	340	38	Malden, . .	5,858	4,894
18	North Reading, . .	134	127	39	Bedford, . .	191	156
19	Wakefield, . .	1,732	1,641	40	Stow, . .	142	115
20	Littleton, . .	200	189	41	Woburn, . .	3,147	2,423
21	Stoneham, . .	956	899	42	Marlborough, . .	2,968	2,263
22	Townsend, . .	267	249	43	Shirley, . .	238	178
23	Acton, . .	279	260	44	Wilmington, . .	315	235
24	Everett, . .	4,381	4,069	45	Tewksbury, . .	493	364
25	Sudbury, . .	180	167	46	Burlington, . .	67	49
26	Arlington, . .	1,364	1,263	47	Tyngsborough, . .	103	73
27	Wayland, . .	418	387	48	Lincoln, . .	166	117
28	Somerville, . .	9,485	8,776	49	Watertown, . .	1,477	1,040
29	Pepperell, . .	704	642	50	Carlisle, . .	80	56
30	Ashby, . .	134	121	51	Dracut, . .	514	358
31	Cambridge, . .	13,780	12,285	52	Waltham, . .	3,832	2,598
32	Newton, . .	5,155	4,585	53	Sherborn, . .	194	130
33	Dunstable, . .	58	51	54	Lowell, . .	14,449	9,651

## SCHOOL RETURNS.

CXXI

## PLYMOUTH COUNTY—CONCLUDED.

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.
7	E. Bridgewater,	498	466	.93-57	18	Carver, . . .	170	143	.84-11
8	Whitman, . . .	1,080	1,004	.92-96	19	Hanson, . . .	205	169	.82-43
9	Plymouth, . . .	1,471	1,358	.92-31	20	W. Bridgewater,	291	237	.81-44
10	Middleborough,	1,043	959	.91-94	21	Hull, . . .	162	130	.80-24
11	Kingston, . . .	333	303	.90-99	22	Duxbury, . . .	267	214	.80-14
12	Mattapoisett, . .	140	125	.89-28	23	Plympton, . . .	54	43	.79-62
13	Marshfield, . . .	263	232	.88-21	24	Pembroke, . . .	191	151	.79-05
14	Scituate, . . .	360	317	.88-05	25	Halifax, . . .	81	55	.67-90
15	Norwell, . . .	245	213	.86-93	26	Rochester, . . .	164	108	.65-85
16	Wareham, . . .	594	507	.85-35	27	Lakeville, . . .	136	89	.65-44
17	Brockton, . . .	6,700	5,688	.84-59					

## SUFFOLK COUNTY.

1	Winthrop, . . .	844	893	1.05-80	3	Chelsea, . . .	5,591	4,716	.84-34
2	Revere, . . .	1,869	1,858	.99-41	4	Boston, . . .	86,505	68,594	.79-29

## WORCESTER COUNTY.

1	Ashburnham,	314	332	1.05-73	31	Worcester, . . .	20,159	16,765	.83-16
2	Westminster, . .	185	194	1.04-86	32	Barre, . . .	316	259	.81-96
3	Westborough, . .	622	650	1.04-50	33	Southborough, . .	309	283	.81-87
4	Princeton, . . .	122	124	1.01-63	34	Brookfield, . . .	558	456	.81-72
5	Hopedale, . . .	233	234	1.00-42	35	Winchendon, . . .	913	743	.81-38
6	Upton, . . .	280	278	.99-28	36	Sturbridge, . . .	316	256	.81-01
7	Sterling, . . .	185	180	.97-29	37	Rutland, . . .	222	179	.80-63
8	Mendon, . . .	136	130	.95-53	38	Millbury, . . .	829	668	.80-57
9	Hubbardston, . . .	199	182	.91-45	39	Harvard, . . .	150	119	.79-33
10	Leicester, . . .	568	519	.91-37	40	Grafton, . . .	921	724	.78-61
11	Shrewsbury, . . .	243	222	.91-35	41	Blackstone, . . .	899	706	.78-53
12	W. Boylston, . . .	465	423	.90-96	42	Clinton, . . .	2,355	1,813	.76-98
13	Dana, . . .	105	95	.90-47	43	Oxford, . . .	486	368	.75-72
14	Leominster, . . .	1,918	1,733	.90-35	44	Boylston, . . .	106	80	.75-47
15	Douglas, . . .	328	295	.89-93	45	Royalston, . . .	141	106	.75-17
16	Oakham, . . .	100	88	.88-00	46	Charlton, . . .	341	242	.70-96
17	Gardner, . . .	1,730	1,514	.87-51	47	Berlin, . . .	164	111	.67-68
18	Uxbridge, . . .	608	532	.87-50	48	New Braintree, . .	91	61	.67-03
19	Northborough, . .	373	326	.87-39	49	Auburn, . . .	352	230	.65-34
20	Northbridge, . . .	1,213	1,052	.86-72	50	Phillipston, . . .	66	41	.62-12
21	Petersham, . . .	111	96	.86-48	51	Fitchburg, . . .	5,679	3,487	.61-40
22	Templeton, . . .	587	506	.86-20	52	Paxton, . . .	72	44	.61-11
23	Athol, . . .	1,042	895	.85-89	53	N. Brookfield, . . .	968	589	.60-84
24	Milford, . . .	1,474	1,260	.85-48	54	Spencer, . . .	1,663	1,002	.60-25
25	Bolton, . . .	120	102	.85-00	55	Hardwick, . . .	553	326	.58-95
26	W. Brookfield, . .	220	187	.85-00	56	Sutton, . . .	620	358	.57-74
27	Holden, . . .	496	421	.84-87	57	Dudley, . . .	671	327	.48-73
28	Warren, . . .	767	646	.84-22	58	Southbridge, . . .	2,018	882	.43-70
29	Lunenburg, . . .	215	180	.83-72	59	Webster, . . .	1,587	621	.39-13
30	Lancaster, . . .	415	347	.83-61					

## GRADUATED ATTENDANCE TABLE.

*Table in which all the counties are numerically arranged, according to the AVERAGE ATTENDANCE of their children upon the public schools for the year 1899-1900.*

For 1898-1899.	For 1899-1900.	COUNTIES.	Ratio of attendance.
1	1	Nantucket, . . . . .	.95-13
3	2	Barnstable, . . . . .	.93-99
5	3	Franklin, . . . . .	.89-83
2	4	Plymouth, . . . . .	.88-77
4	5	Norfolk, . . . . .	.87-75
10	6	Dukes, . . . . .	.86-94
6	7	Middlesex, . . . . .	.85-42
7	8	Hampshire, . . . . .	.80-92
8	9	Suffolk, . . . . .	.80-22
11	10	Berkshire, . . . . .	.78-73
12	11	Essex, . . . . .	.78-28
9	12	Worcester, . . . . .	.77-35
13	13	Hampden, . . . . .	.73-09
14	14	Bristol, . . . . .	.67-53
STATE, . . . . .			.79-95

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